R E P O R T R E S U M E S

ED 012 836 AC 000 076

ADULT BASIC EDUCATION WORK BOOK IN BASIC ARITHMETIC. PARTS I AND II.

BY- GRAHAM, MINNIE M.
DANBURY PUBLIC SCHOOLS, CONN.

PUB DATE 66

EDRS PRICE MF-$0.75 HC-$5.84 146P.

DESCRIPTORS- *WORKBOOKS, *ADULT BASIC EDUCATION, *ARITHMETIC, INSTRUCTIONAL MATERIALS, DANBURY, CONNECTICUT,

THESE WORKBOOKS, WHICH ARE USED IN THE ADULT BASIC EDUCATION PROGRAM IN DANBURY, CONNECTICUT, PROVIDE TEACHING MATERIALS AND DRILL EXERCISES IN MULTIPLICATION. PART I CONTAINS MULTIPLICATION TABLES, PROBLEMS, AND DRILL INVOLVING THE NUMERALS TWO THROUGH NINE. PART II CONTAINS PROBLEMS AND DRILL EXERCISES USING THE NUMERALS TEN TO TWELVE, NUMBERS WITH TWO AND THREE DIGITS, THE USE OF ZERO, AND DOLLARS AND CENTS, FOLLOWED BY EXERCISES TO TEST SPEED AND ACCURACY. (LY)

ADULT BASIC EDUCATION

WORK BOOK

IN

BASIC ARITHMETIC

MULTIPLICATION OF WHOLE NUMBERS FOR INSTRUCTION OF ADULTS

PART I

Danbury Public Schools
Office of Adult Education
Danbury, Connecticut
1966 - 1967

LEARNING TO MULTIPLY

Part I

Drill Exercises
Multiplying By:
Two through Nine (inclusive)

Part II

Drill Exercises
Multiplying By:
Ten through Twelve (inclusive)
and
Miscellaneous Drills

To the Instructors:

The purpose of this workbook, in multiplication, like that of addition and subtraction, is to fulfill a request by teachers of arithmetic for material to aid in the teaching of adult students who are doing work of elementary grade level.

Instructors will find it necessary to supplement the material offered in this workbook with other material in order to adequately meet the needs of their students. Many more exercises, reviews and drills will be necessary.

This material, as presented, has been formulated and organized by Minnie M. Graham, Specialist in Adult Education, Baltimore, Maryland. Permission for reproduction has been extended through the courtesy of the author.

Frank R. Repole, Ed.D.
Director of Adult Education

TABLE OF CONTENTS
(Part I)

TABLE OF CONTENTS
(Part II)

Learning to Multiply

John went to the store on Monday, Tuesday, Wednesday and Thursday. Each day he spent five cents. He added the money that he had spent in this way.

$$\begin{array}{rl} 5¢ & \text{on Monday} \\ 5¢ & \text{on Tuesday} \\ 5¢ & \text{on Wednesday} \\ +\ 5¢ & \text{on Thursday} \\ \hline 20¢ & \end{array}$$

He had spent 20¢. He saw that he had spent 4 times 5¢, which was 20¢.

John found that adding was a long way to get his answer. He also found that saying, "4 times 5¢ is 20¢", was a short way to get his answer.

The short way is called multiplication. Like addition and subtraction there is a sign for multiplication. The sign is (x) and is called a "times" sign. When saying or thinking 4 x 5¢ is 20¢, John was multiplying.

Multiplication may be written:

$$4 \times 5 = 20 \quad \text{or} \quad \begin{array}{r} 4 \\ \times 5 \\ \hline 20 \end{array}$$

John has now learned to use the following signs;

Addition	Subtraction	Multiplication
2 + 2 = 4 (plus)	4 - 2 = 2 (minus)	2 x 2 = 4 (times)

Memorize:

1 nickel is 5 cents

2 nickles are 2 times 5 cents or 10 cents

3 nickles are 3 times 5 cents or 15 cents

4 nickles are 4 times 5 cents or 20 cents

5 nickles are 5 times 5 cents or 25 cents

6 nickles are 6 times 5 cents or 30 cents

7 nickles are 7 times 5 cents or 35 cents

8 nickles are 8 times 5 cents or 40 cents

9 nickles are 9 times 5 cents or 45 cents

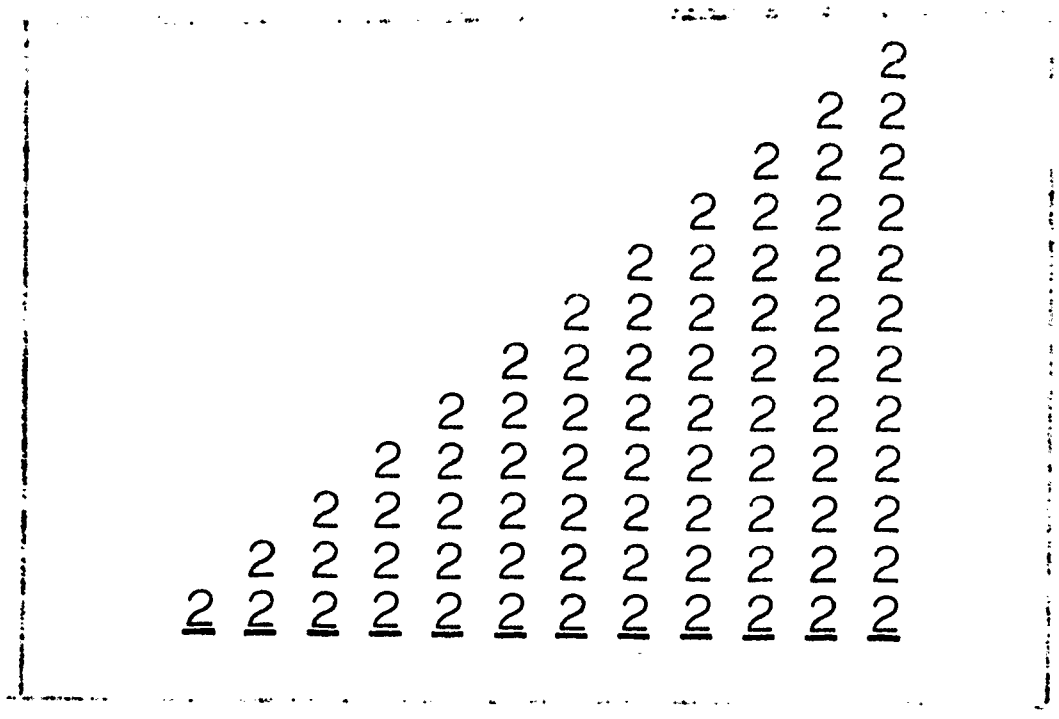
10 nickles are10 times 5 cents or 50 cents

11 nickles are11 times 5 cents or 55 cents

12 nickles are12 times 5 cents or 60 cents

Multiplying By Two

Add the columns of 2's from one two to twelve 2's.



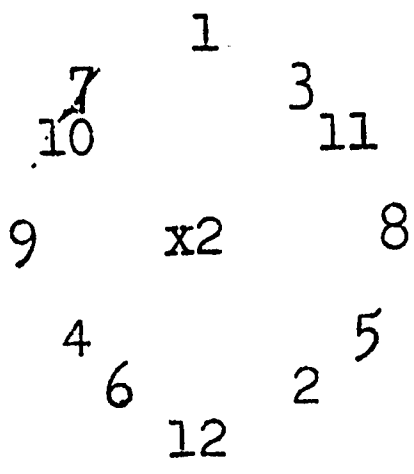
1. Count the columns of 2's from one 2 to twelve 2's.
2. Place your answer under each line.
3. Read the columns beginning, "one 2 is 2, two 2's are 4, three 2's are 6," and so on.
4. How many are two 2's? five 2's? eight 2's? twelve 2's?

Complete the following table of 2's.

Learn the table.

0 x 2 =	3 x 2 =	6 x 2 =	10 x 2 =
1 x 2 =	4 x 2 =	7 x 2 =	11 x 2 =
2 x 2 =	5 x 2 =	8 x 2 =	12 x 2 =
		9 x 2 =	2 x 0 =

Practice - Table of Two



1. The edge of the circle contains 12 numbers.
2. Begin with 1. Multiply each number by two moving clock wise.
3. Write each answer on your paper.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____

Supply the missing numbers:

4 = ____ 2's 6 = _____ 2's 16 = _____ 2's

8 = _____ 2's 10 = _____ 2's 18 = _____ 2's

12 = _____ 2's 14 = _____ 2's 20 = _____ 2's

2 x 2 =	2 x 10 =	3 x 2 =
2 x 4 =	2 x 12 =	7 x 2 =
2 x 6 =	2 x 9 =	2 x 2 =
2 x 0 =	2 x 11 =	5 x 2 =
2 x 1 =	1 x 2 =	9 x 2 =
2 x 5 =	6 x 2 =	11 x 2 =
2 x 3 =	10 x 2 =	4 x 2 =
2 x 7 =	8 x 2 =	12 x 2 =

DRILL - Multiplying By Two

State the answer to:

2 x 11	2 x 9	2 x 0	2 x 2
2 x 12	2 x 6	2 x 8	2 x 5
2 x 13	2 x 10	2 x 7	2 x 3

11 x 2	6 x 2	0 x 2	7 x 2	3 x 2
9 x 2	8 x 2	11 x 2	5 x 2	10 x 2

Problems:

Answer the following:

1. A stick of candy costs 2¢. How much will 5 sticks of candy cost?

2. There are 2 books on each desk in a room. How many books are there on 12 desks?

3. Mary is giving 2 pieces of paper to each pupil. How many pieces will she give to 9 pupils?

4. If 2 panes of glass are needed for a window, how many panes of glass will be needed for 7 windows?

5. There are 2 pints in a quart. In 6 quarts there will be how many pints?

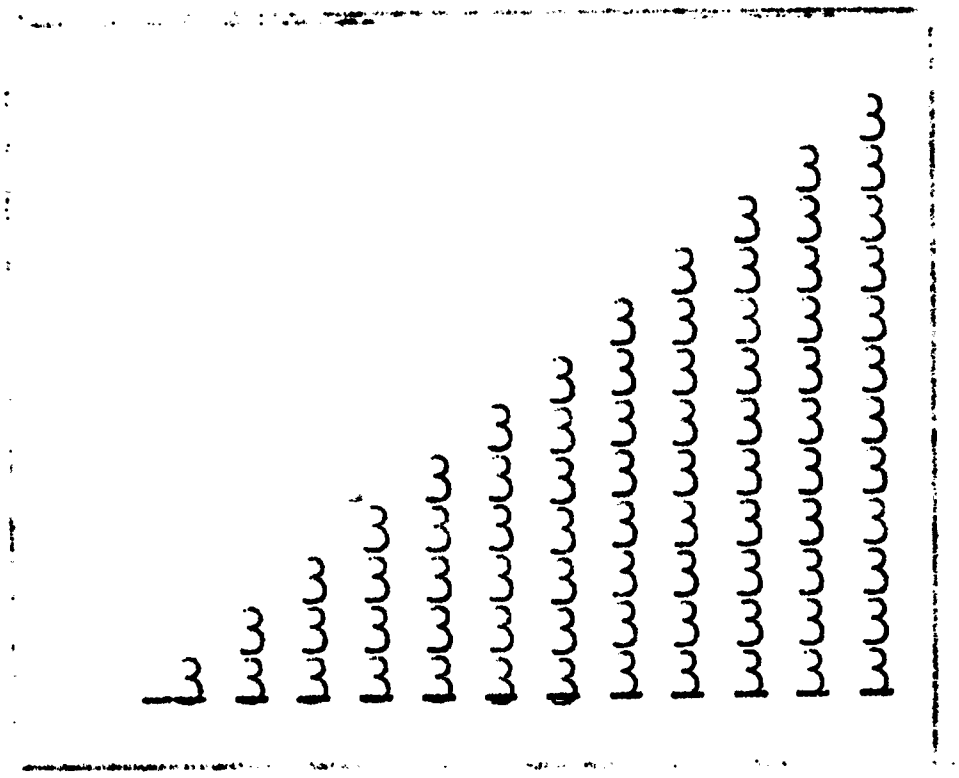
Multiplication Drill

11 x 2	21 x 2	10 x 2	8 x 2	12 x 2	0 x 2
9 x 2	6 x 2	4 x 2	5 x 2	7 x 2	1 x 2
111 x 2	222 x 2	122 x 2	212 x 2	211 x 2	120 x 2
101 x 2	202 x 2	220 x 2	110 x 2	100 x 2	201 x 2
31 x 2	42 x 2	40 x 2	51 x 2	92 x 2	20 x 2
82 x 2	70 x 2	62 x 2	52 x 2	12 x 2	32 x 2

Multiplication Involving Carrying

35 x 2	45 x 2	55 x 2	75 x 2	85 x 2
15 x 2	16 x 2	17 x 2	18 x 2	19 x 2
351 x 2	262 x 2	252 x 2	452 x 2	660 x 2
8622 x 2	4511 x 2	2710 x 2	1621 x 2	1743 x 2
3812 x 2	4602 x 2	2733 x 2	4534 x 2	3601 x 2
4251 x 2	3163 x 2	5372 x 2	6181 x 2	6554 x 2

Multiplying By Three



1. Count the columns of 3's from one 3 to twelve 3's.

2. Place your answer under each line.

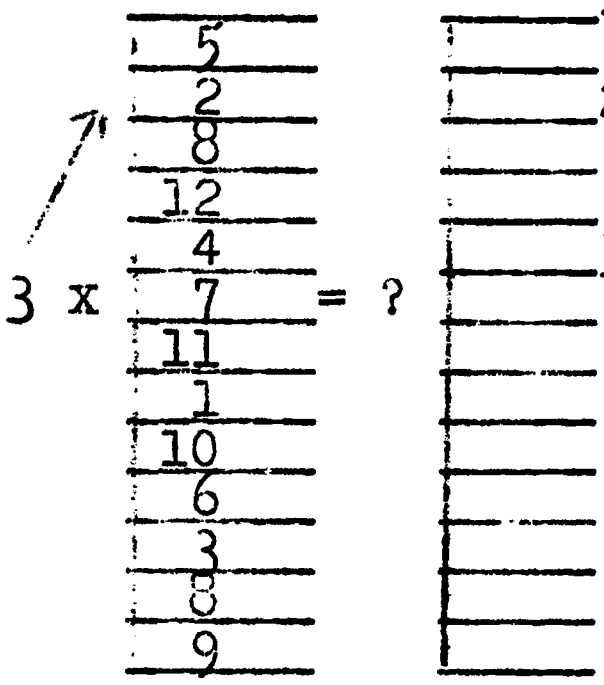
3. Read the columns beginning, "one 3 is 3, two 3's are 6, three 3's are 9," and so on.

4. How many are four 3's? five 3's? six 3's?

5. Complete the following table of 3's. Learn the table.

0 x 3 =	5 x 3 =	9 x 3 =
1 x 3 =	6 x 3 =	10 x 3 =
2 x 3 =	7 x 3 =	11 x 3 =
3 x 3 =	8 x 3 =	12 x 3 =
4 x 3 =	9 x 3 =	3 x 0 =

Practice - Table of Three



1. The rungs of the ladder contain 12 numbers.
2. Begin with the first number and multiply each number by 3.
3. Write each answer on your paper

Supply the missing numbers:

9 = ____ 3's
12 = ____ 3's
15 = ____ 3's

6 = ____ 3's
18 = ____ 3's
21 = ____ 3's

30 = ____ 3's
27 = ____ 3's
24 = ____ 3's

3 x 5 =
3 x 3 =
3 x 2 =
3 x 9 =
3 x 11 =
3 x 6 =
3 x 1 =
3 x 7 =
3 x 4 =

3 x 8 =
3 x 10 =
3 x 12 =
3 x 0 =
3 x 3 =
3 x 4 =
3 x 3 =
3 x 3 =
12 x 3 =

7 x 3 =
9 x 3 =
1 x 3 =
11 x 3 =
8 x 3 =
10 x 3 =
2 x 3 =
0 x 3 =

DRILL - MULTIPLYING BY THREE

State the answer to:

3 x 2	3 x 8	3 x 4
3 x 9	3 x 3	3 x 7
3 x 5	3 x 6	3 x 10
3 x 11	3 x 0	
3 x 12	3 x 1	

---

1 x 3	5 x 3	6 x 3	0 x 3	2 x 3	12 x 3
3 x 3	7 x 3	8 x 3	11 x 3	10 x 3	9 x 3

Problems:

Answer the following:

1. A pencil costs 3 cents. What will 5 pencils cost?

2. A tripod has 3 legs. How many legs have 4 tripods?

3. Each student in the class needs 3 pieces of paper. How many pieces of paper will 6 students need?

4. If it takes 3 yards of cloth to make a dress, how many yards will take to make 5 dresses?

5. A family uses 3 quarts of milk a day. How many quarts will be used in a week?

6. How many feet are there in eight yards?

Multiplication Drill

8 x 3	0 x 3	21 x 3	11 x 3	10 x 3	12 x 3
7 x 3	5 x 3	6 x 3	1 x 3	9 x 3	4 x 3
111 x 3	232 x 3	213 x 3	122 x 3	320 x 3	223 x 3
310 x 3	300 x 3	101 x 3	202 x 3	230 x 3	201 x 3
42 x 3	33 x 3	92 x 3	40 x 3	51 x 3	30 x 3
32 x 3	12 x 3	52 x 3	63 x 3	70 x 3	83 x 3

Multiplication Practice

Copy and Complete:

1. 6 x ( ) = 18	1. ( ) x 3 = 3
2. 3 x ( ) = 30	2. ( ) x 2 = 18
3. 9 x ( ) = 27	3. ( ) x 12= 36
4. 4 x ( ) = 12	4. ( ) x 6 = 24
5. 7 x ( ) = 21	5. ( ) x 7 = 14
6. 2 x ( ) = 6	6. ( ) x 2 = 6
7. 8 x ( ) = 24	7. ( ) x 5 = 15
8. 11 x ( ) = 33	8. ( ) x 3 = 0
9. 12 x ( ) = 36	9. ( ) x 5 = 20
10. 3 x ( ) = 33	10. ( ) x 2 = 14
11. 3 x ( ) = 36	11. ( ) x 3 = 9
12. 3 x ( ) = 0	12. ( ) x 8 = 24

Write the missing numbers:

5 x ? 20	3 x ? 21	4 x ? 12	6 x ? 18	7 x ? 28	10 x ? 30

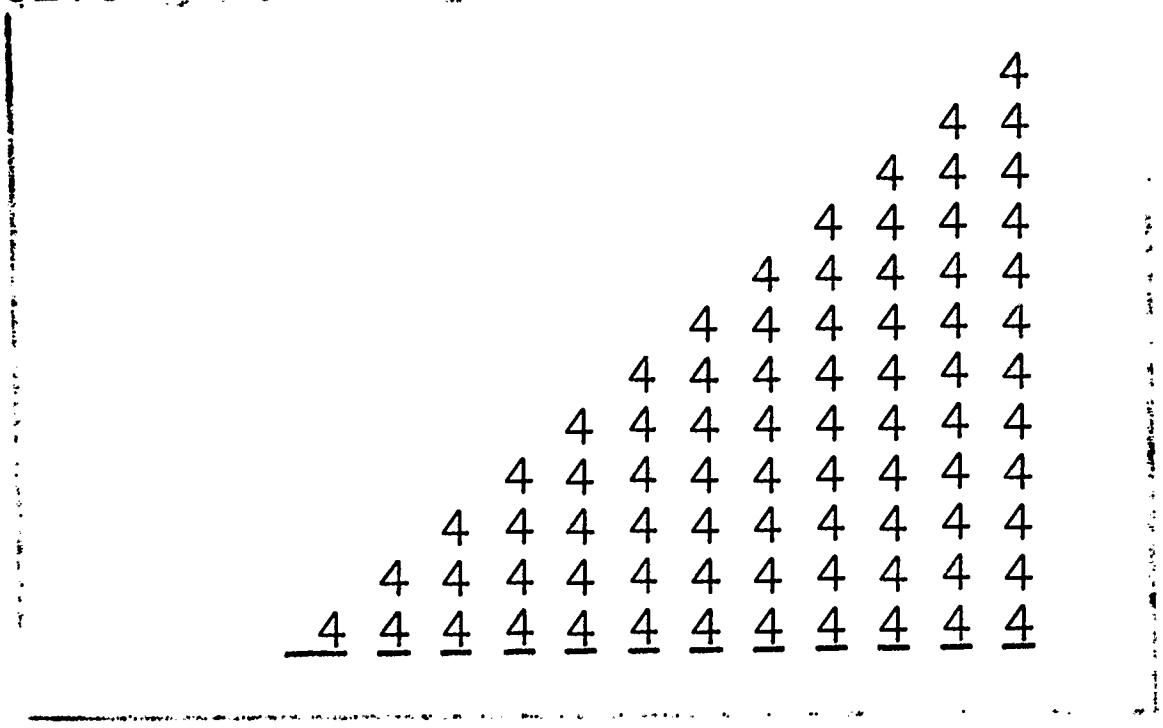
? x11 33	? x 4 44	? x 2 18	? x 4 16	? x 5 25	? x 2 24

Multiplication Involving Carrying

75 x 3	85 x 3	55 x 3	35 x 3	45 x 3	65 x 3
19 x 3	15 x 3	17 x 3	14 x 3	16 x 3	18 x 3
540 x 3	453 x 3	440 x 3	351 x 3	362 x 3	662 x 3
1743 x 3	4511 x 3	8622 x 3	1621 x 3	2813 x 3	4511 x 3
4602 x 3	3812 x 3	3814 x 3	2733 x 3	4531 x 3	6323 x 3
4251 x 3	3163 x 3	5372 x 3	6191 x 3	8634 x 3	9345 x 3

Multiplying By Four

Add the columns of 4's from one 4 to twelve 4's.



1. Count the columns of 4's from one 4 to twelve 4's.

2. Place your answer under each line.

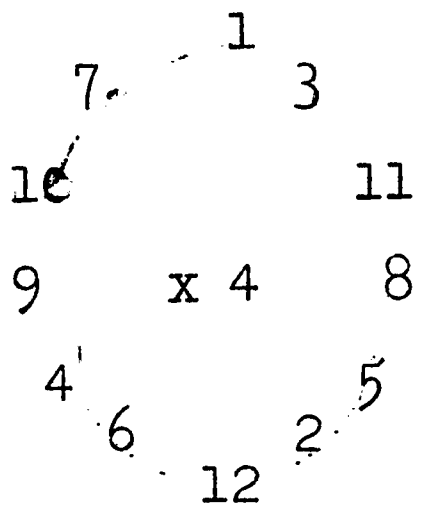
3. Read the columns beginning, "one 4 is 4, two 4's are 8, three 4's are 12", and so on.

4. How many are three 4's? six 4's? five 4's?

5. Complete the following table of 4's. Learn the table.

0 x 4 =	3 x 4 =	6 x 4 =	10 x 4 =
1 x 4 =	4 x 4 =	7 x 4 =	11 x 4 =
2 x 4 =	5 x 4 =	8 x 4 =	12 x 4 =
		9 x 4 =	4 x 0 =

Practice - Table of Four



1. The edge of the circle contains 12 numbers.
2. Begin with 1. Multiply each number by four moving clock-wise.
3. Write each answer on your paper.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____

Supply the missing numbers:

12 = _____ 4's	8 = _____ 4's	20 = _____ 4's
24 = _____ 4's	16 = _____ 4's	28 = _____ 4's
48 = _____ 4's	31 = _____ 4's	36 = _____ 4's

4 x 3 =	4 x 12 =	3 x 4 =	12 x 4 =
4 x 5 =	4 x 1 =	5 x 4 =	1 x 4 =
4 x 9 =	4 x 7 =	9 x 4 =	7 x 4 =
4 x 2 =	4 x 10 =	2 x 4 =	10 x 4 =
4 x 6 =	4 x 8 =	6 x 4 =	8 x 4 =
4 x 11=	4 x 4 =	11 x 4 =	4 x 4 =

Drill - Multiplying By Four

State the answer to:

4 x 2	4 x 8	4 x 4
4 x 9	4 x 3	4 x 7
4 x 5	4 x 6	4 x 10
4 x 11	4 x 0	
4 x 12	4 x 1	

---

1 x 4	5 x 4	6 x 4	0 x 4	2 x 4	12 x 4
3 x 4	7 x 4	8 x 4	11 x 4	10 x 4	9 x 4

Problems:

Answer the following:

1. A dog has 4 feet. How many feet have 6 dogs?

2. A chair has 4 legs. How many legs have 4 tables?

3. A table has 4 sides. How many sides have 2 tables?

4. How many fingers have 4 people?

5. How many thumbs have 4 people?

6. There are 4 quarts in a gallon. How many quarts are there in 3 gallons?

Multiplication Drill

11 x 4	21 x 4	10 x 4	8 x 4	12 x 4
9 x 4	6 x 4	4 x 4	5 x 4	7 x 4
111 x 4	222 x 4	122 x 4	212 x 4	211 x 4
101 x 4	202 x 4	220 x 4	110 x 4	100 x 4
31 x 4	42 x 4	40 x 4	51 x 4	92 x 4
82 x 4	70 x 4	62 x 4	52 x 4	12 x 4

Multiplication Involving Carrying

44 x 4	53 x 4	63 x 4	73 x 4	83 x 4
15 x 4	16 x 4	17 x 4	18 x 4	19 x 4
331 x 4	432 x 4	351 x 4	442 x 4	630 x 4
4322 x 4	3411 x 4	6310 x 4	7321 x 4	
8312 x 4	9402 x 4	5422 x 4	5312 x 4	
4331 x 4	5332 x 4	6432 x 4	7440 x 4	

Review Drill in Multiplication

Multiply the upper number by the lower.
Write the answer on your paper.

3	9	7	4	6	8	12	11
4	2	3	4	4	3	2	2
—	—	—	—	—	—	—	—

Tell as quickly as you can which answer is the correct answer.

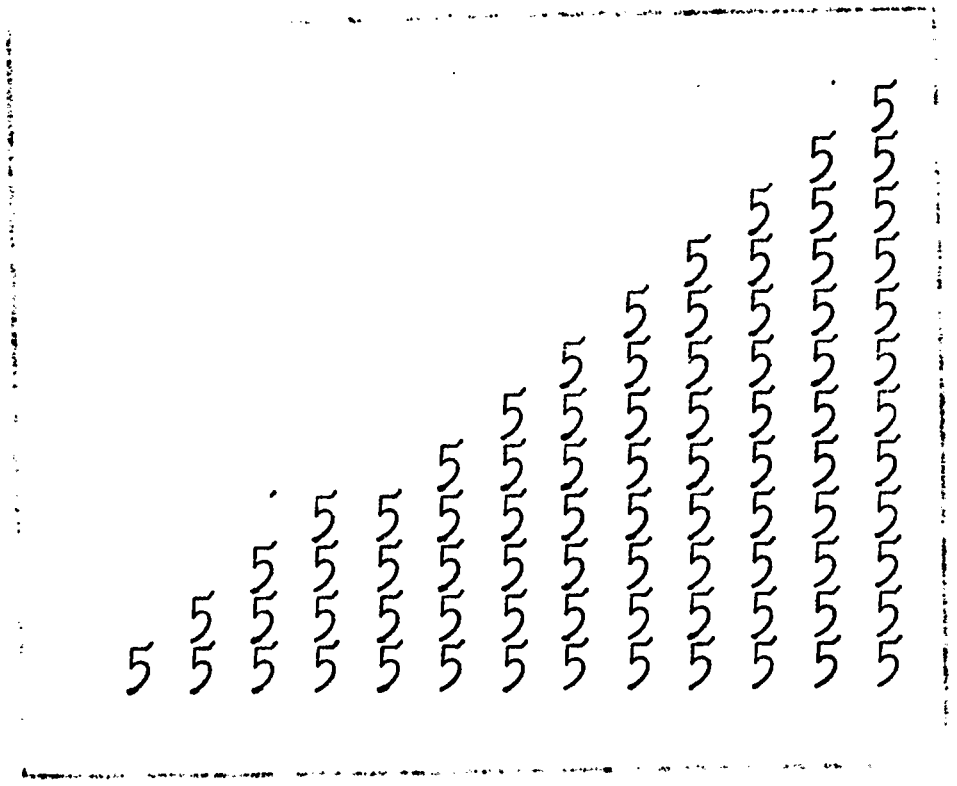
9 x 4	28, 36, 32	4 x 7	28, 36, 32
10 x 3	33, 30, 24	3 x 8	16, 32, 24
10 x 3	30, 32, 24	4 x 6	28, 24, 26
11 x 2	22, 32, 24	2 x 12	30, 32, 24
2 x 11	32, 42, 22		

Supply the correct answers:

~~4 x 7 >~~	~~6 x 3 >~~	~~4 x 11 >~~
~~7 x 4 >~~	~~12 x 4 >~~	~~3 x 9 >~~
~~10 x 3 >~~	~~9 x 4 >~~	~~8 x 3 >~~

Multiplying By Five

Add the columns of 5's from one 5 to twelve 5's.



1. Count the columns of 5's from one 5 to twelve 5's.

2. Place your answer under each line.

3. Read the columns beginning, "one 5 is 5, two 5's are 10, three 5's are 15 and so on.

4. How many are three 5's? four 5's? six 5's?

Complete the following table of 5's.

Learn the table.

0 x 5 =	5 x 5 =	9 x 5 =
1 x 5 =	6 x 5 =	10 x 5 =
2 x 5 =	7 x 5 =	11 x 5 =
3 x 5 =	8 x 5 =	12 x 5 =
4 x 5 =		5 x 0 =

Practice - Table of Five

2	7	1	5
8			9
10			12
3	11	6	4

1. The edge of the square contains 12 numbers
2. Begin with 1. Multiply each number by 5 moving toward the right.
3. Write each answer on your paper.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____

Supply the missing numbers:

10 = _____ 5's	15 = _____ 5's	35 = _____ 5's
20 = _____ 5's	30 = _____ 5's	45 = _____ 5's
25 = _____ 5's	60 = _____ 5's	55 = _____ 5's

5 x 3 =	5 x 12 =	3 x 5 =	12 x 5 =
5 x 5 =	5 x 1 =	5 x 5 =	1 x 5 =
5 x 9 =	5 x 7 =	9 x 5 =	7 x 5 =
5 x 2 =	5 x 10 =	2 x 5 =	10 x 5 =
5 x 6 =	5 x 8 =	6 x 5 =	8 x 5 =
5 x 11 =	5 x 4 =	11 x 5 =	4 x 5 =

Drill - Multiplying By Five

State the answer to:

5 x 2		5 x 8		5 x 4
5 x 9		5 x 3		5 x 7
5 x 6				5 x 10
	5 x 12		5 x 0	
	5 x 11		5 x 1	

---

1 x 5	5 x 5	6 x 5	0 x 5	2 x 5
3 x 5	7 x 5	8 x 5	11 x 5	10 x 5
	12 x 5		9 x 5	

Problems:

Answer the following:

1. A pencil costs 5¢. How much will 4 pencils cost?

2. If there are 5 school days in a week, how many days are there in 2 weeks? 7 weeks? 8 weeks? 4 weeks?

3. John has 5 marbles. Fred has 3 times as many. How many marbles has Fred?

4. A boy learns 5 new words in a day. How many words will he learn in 5 days

5. At 5¢ a yard how much will 10 yards of ribbon cost?

6. A lady buys 3 loaves of bread every day. How much bread will she buy in a week?

Multiplication Drill

11 x 5	9 x 5	6 x 5	12 x 5	0 x 5	5 x 5
21 x 5	4 x 5	8 x 5	10 x 5	7 x 5	2 x 5
11 x 5	31 x 5	41 x 5	51 x 5	61 x 5	71 x 5
20 x 5	30 x 5	40 x 5	50 x 5	60 x 5	70 x 5
61 x 5	81 x 5	71 x 5	91 x 5	101 x 5	201 x 5
100 x 5	500 x 5	301 x 5	400 x 5	500 x 5	501 x 5

Drill - Multiplying by Five

Write the correct answer:

2	5	4	7	3	0	8	1	9
x 5	x 5	x 5	x 5	x 5	x 5	x 5	x 5	x 5

6	4	4	8	5	6	9	7
x 5	x 5	x 5	x 5	x 5	x 5	x 5	x 5

5 x 3 + 2 =	5 x 7 = __ x 5	5 x ( ) = 10
5 x 5 + 1 =	5 x 1 = __ x 5	5 x ( ) = 25
5 x 3 + 3 =	5 x 9 = __ x 5	5 x ( ) = 35
5 x 6 + 2 =	5 x 2 = __ x 5	5 x ( ) = 5
5 x 8 - 3 =	5 x__ = 4 x 5	5 x ( ) = 15
5 x 9 + 1 =	5 x__ = 6 x 5	5 x ( ) = 30
5 x 7 + 4 =	5 x__ = 0 x 5	5 x ( ) = 45
9 x 5 + 2 =	5 x__ = 9 x 5	( ) x 5 = 0
8 x 5 + 1 =	5 x 3 = 3 x__	( ) x 5 = 20
6 x 4 + 4 =	5 x 8 = 8 x__	( ) x 5 = 40
7 x 5 + 5 =	5 x 2 = 2 x__	( ) x 5 = 15
5 x 5 + 4 =	5 x 7 = 7 x__	( ) x 5 = 25
3 x 5 + 5 =	5 x 9 = 9 x__	( ) x 5 = 40
4 x 5 + 3 =	5 x 6 = 6 x__	( ) x 5 = 30

Drill - Multiplying by Five

If one nickel is 5 cents, fill in the blanks below:

2 nickels = ( )	5 x ( ) = 25
5 nickels = ( )	6 x ( ) = 30
3 nickels = ( )	12 x ( ) = 60
6 nickels = ( )	11 x 5 = ( )
10 nickels	9 x 5 = ( )
9 nickels = ( )	( )x 5 = 40
12 nickels = ( )	( )x 5 = 20
11 nickels = ( )	( )x 5 = 35
4 nickels = ( )	( )x 5 = 15
1 nickel = ( )	2 x ( ) = 10
	1 x ( ) = 5
	( )x 5 = 50

Problems:

1. Ann's mother bought 5 boxes of strawberries at 15¢ a box. What did she pay for 5 boxes?

2. John bought 4 tickets to the picture show. The tickets cost 25¢ each. What did he pay for 4 tickets?

3. If oranges cost 45¢ a dozen, what will 5 dozen of oranges cost?

4. There are 16 ounces in 1 pound. How many ounces are there in 5 pounds?

5. There are 12 inches in one foot. How many inches are there in 5 feet?

Drill - Multiplying by Five

6. If ribbon costs 15¢ a yard, what is the cost of 5 yards?

7. What is the product of 5 and 30?

8. Mr. Steele bought 5 watermelons. What would they cost him if they were 55¢ each?

9. Mr. Smith drove 350 miles a day for 3 days. How far did he drive while on his trip?

10. If bread costs 18¢ a loaf, what will Jane pay for 3 loaves?

Fill the blank with the correct number.

5 two's are ____	5 x 2 =	2 x 5 =
5 three's are____	5 x 3 =	3 x 5 =
5 four's are ____	5 x 4 =	4 x 5 =
5 five's are____	5 x 5 =	1 x 5 =
5 six's are____	5 x 6 =	6 x 5 =
5 seven's are____	5 x 7 =	7 x 5 =
5 eight's are____	5 x 8 =	0 x 5 =
5 nine's are____	5 x 9 =	9 x 5 =
5 zero's are____	5 x 0 =	8 x 5 =

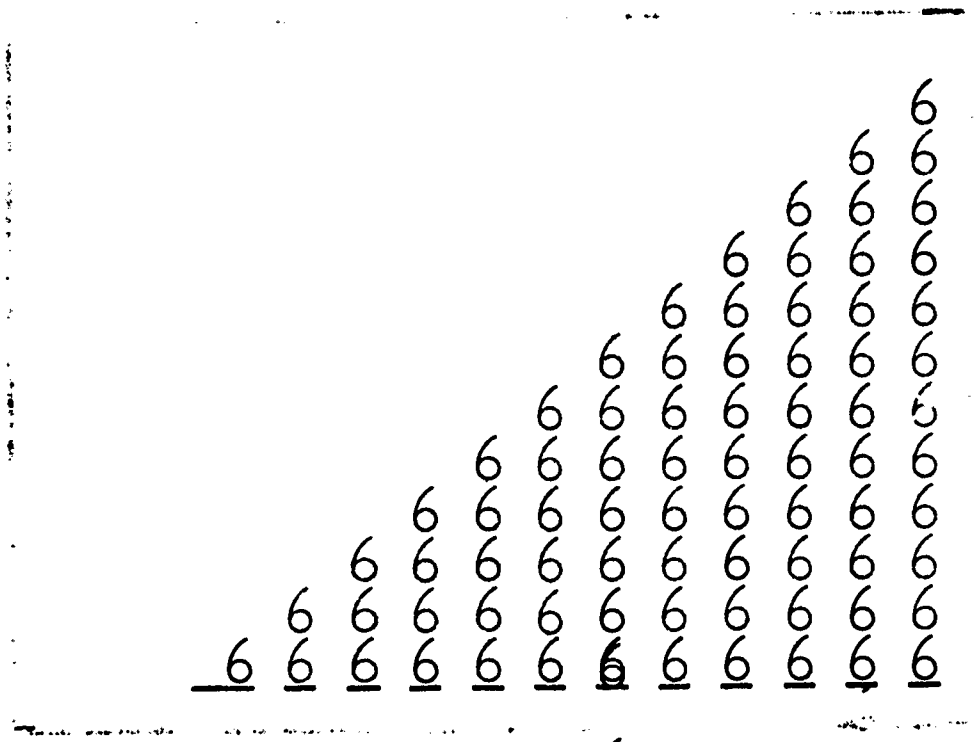
2	3	4	5	6	7	8	9
2	3	4	5	6	7	8	9
2	3	4	5	6	7	8	9
2	3	4	5	6	7	8	9
2	3	4	5	6	7	8	9

Problems: 1.How many cents are equal in value to 5 nickels?

2. John bought ice-cream for himself and seven friends. What would it cost if each cone was 5¢.

Multiplying By Six

Add the columns of 6's from one 6 to twelve 6's.



1. Count the columns of 6's from one 6 to twelve 6's.

2. Place your answer under each line.

3. Read the columns beginning "one 6 is 6", "two 6's are 12", "three 6's are 18," and so on.

4. How many are three 6's? four 6's? six 6's? Complete the following table of 6's. Learn the table.

1 x 6 =	5 x 6 =	9 x 6 =
2 x 6 =	6 x 6 =	10 x 6 =
3 x 6 =	7 x 6 =	11 x 6 =
4 x 6 =	8 x 6 =	12 x 6 =

6 x 0 = 0 0 x 6 = 0

Multiplying By Six

11	6	7
12		1
3	x6	9
8		10
4	2	5

1. The edge of the square contains 12 numbers
2. Begin with 6. Multiply each number by 6 moving to the right.
3. Write each answer on your paper.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____

Supply the missing numbers:

12=_____6's
24=_____6's
36+_____6's

18=_____6's
42=_____6's
30=_____6's

48=_____6's
60=_____6's
54=_____6's

( ) x 6 = 36
( ) x 6 = 66
( ) x 6 = 54
( ) x 6 = 72

( ) x 6 = 48
( ) x 6 = 42
( ) x 6 = 6
( ) x 6 = 12

( ) x 6 = 18
( ) x 6 = 24
( ) x 6 = 60
( ) x 6 = 30

6 x 9 =
6 x 4 =
6 x 3 =
6 x 0 =
6 x 11=
6 x 10=
6 x 5 =

6 x 7 =
6 x 12=
6 x 1 =
6 x 6 =
6 x 8 =
6 x 2 =
6 x 10=

2 x 6 =
7 x 6 =
10 x 6 =
9 x 6 =
1 x 6 =
11 x 6 =
4 x 6 =

0 x 6 =
5 x 6 =
11 x 6 =
3 x 6 =
8 x 6 =
12 x 6 =
6 x 6 =

Practice - Multiplying By Six

State the answer to:

6 x 5	8 x 6	12 x 6
6 x 12	6 x 9	0 x 6
11 x 6	6 x 7	6 x 6

---

6 x 0 =	6 x 6 =	7 x 6 =
2 x 6 =	9 x 6 =	5 x 6 =
8 x 6 =	;2 x 6 =	4 x 6 =
3 x 6 =	10 x 6 =	11 x 6 =

---

6 x ( ) = 18	6 x ( ) = 36	6 x ( ) = 60
6 x ( ) = 66	6 x ( ) = 54	6 x ( ) = 72
6 x ( ) = 24	6 x ( ) = 48	6 x ( ) = 30
6 x ( ) = 42	6 x ( ) = 6	6 x ( ) = 12

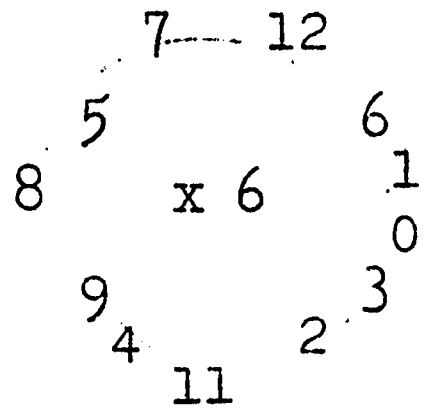
---

3 sixes = ___	four 6's = ___	11 times 6=____
two 6's = ___	7 sixes = ____	12 times 6=____
eight 6's=___	10 sixes = ____	1 times 6=____
9 sixes = ___	five 6's= ____	6 times 6=____

---

6 x 2 = ____ x 6	6 x 3 = ____ x 6
6 x 8 = ____ x 6	6 x 4 = ____ x 6
6 x 0 = ____ x 6	6 x 7 = ____ x 6
6 x 9 = ____ x 6	6 x 9 = ____ x 6
6 x 5 = ____ x 6	

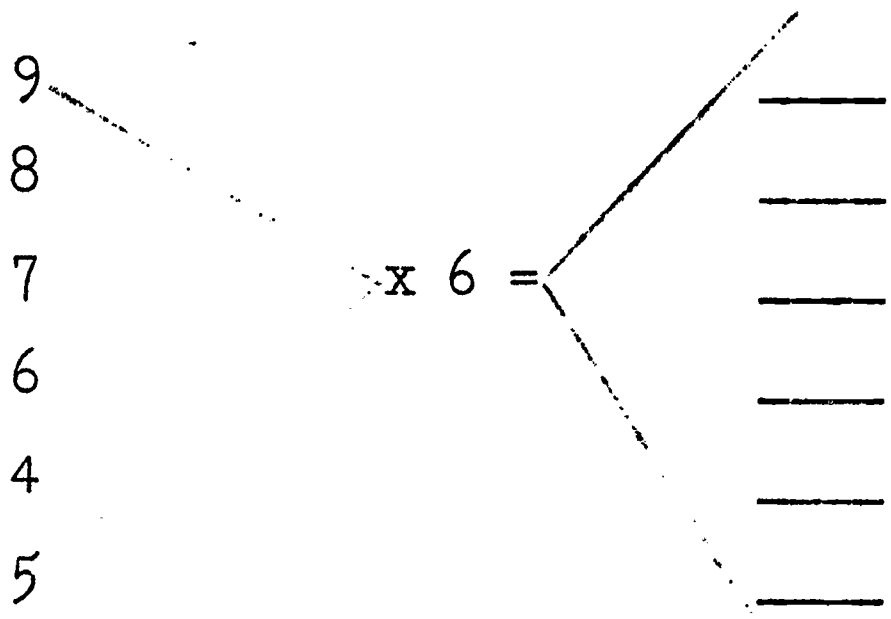
Practice - Multiplying By Six



1. The edge of the circle contains 12 numbers.
2. Begin with 7. Multiply each number by 6 moving clock wise.
3. Write each answer on your paper.

1. ____
2. ____
3. ____
4. ____
5. ____
6. ____
7. ____
8. ____
9. ____
10. ____
11. ____
12. ____

Obey the sign and write the answers on the blanks.



Multiply the upper numbers by the lower. Write the answers on your paper.

6	7	9	6	8	10	3	6	6	11	6
x	x	x	x	x	x	x	x	x	x	x
4	6	6	5	6	6	6	2	2	6	5
___	___	___	___	___	___	___	___	___	___	___

Multiplication Drill

How much must I pay for:

Two 6 cent erasers?
Eight 6 cent tarts?
Four 6 cent tops?
Ten 6 cent rides?
Three 6 cent cakes?
Seven 6 cent balloons?
Nine 6 cent candies?
Five 6 cent brushes?
Six 6 cent whistles?
Six 8 cent melons?
Six 4 cent pencils?
Six 7 cent tickets?
Six 6 cent cakes?
Six 9 cent crayons?
Six 3 cent papers?
Six 5 cent oranges?
Six 2 cent stamps?
Six 10 cent pies?

7	8	9	6	11	12	5
7	8	9	6	11	12	5
7	8	9	6	11	12	5
7	8	9	6	11	12	5
7	8	9	6	11	12	5
+7	+8	+9	+6	+11	+12	+5

Multiplication Drill

11 x 6	21 x 6	10 x 6	8 x 6	12 x 6	0 x 6
9 x 6	6 x 6	4 x 6	5 x 6	7 x 6	2 x 6
111 x 6	222 x 6	122 x 6	212 x 6	211 x 6	201 x 6
101 x 6	202 x 6	220 x 6	110 x 6	100 x 6	500 x 6
31 x 6	42 x 6	40 x 6	51 x 6	92 x 6	60 x 6
82 x 6	70 x 6	33 x 6	52 x 6	12 x 6	62 x 6
44 x 6	53 x 6	63 x 6	73 x 6	83 x 6	93 x 6

Multiplication Drill

15 x 6	16 x 6	72 x 6	82 x 6	19 x 6	18 x 6
331 x 6	431 x 6	350 x 6	442 x 6	630 x 6	601 x 6
711 x 6	512 x 6	403 x 6	315 x 6	8312 x 6	9402 x 6
5422 x 6	5312 x 6	4331 x 6	5332 x 6	6432 x 6	7401 x 6
20 x 6	30 x 6	40 x 6	50 x 6	60 x 6	70 x 6
120 x 6	130 x 6	140 x 6	150 x 6	110 x 6	90 x 6
31 x 6	51 x 6	111 x 6	121 x 6	81 x 6	110 x 6

MULTIPLICATION DRILL

Problems for Six Table

1. If there are 6 rows of seats and 6 children are seated in each row, how many pieces of paper are needed for all?

2. At 6¢ each, what is the cost of 8 oranges?

3. At 6¢ each, what is the cost of 9 paint books?

4. If there are 6 buckles on one shoe, how many buckles will be on three shoes?

5. If one melon costs 6 cents, how many can you get for 18¢?

6. Jumping rope is 6 ft. long, how many feet of rope is needed for 6 children?

7. There are 6 apples in a basket, how many in 7 baskets?

8. If 6 oranges cost 24¢, how much will a dozen oranges cost?

9. Tom works 6 days a week and gets $5.00 a day, how much does he make a week?

Multiplication Drill

10. If shoes cost $2.98 a pair, what will 6 pairs cost?

11. One flower costs 60¢, what will 6 cost?

12. Each child took 2 sandwiches, how many would 6 children take?

13. Six gloves were lying on a counter, how many pair would that be?

14. At $2.75 a ticket, what would six tickets cost?

15. If a pencil cost 6 cents, an orange 6 cents, a cake 6 cents, a pack of gum 6 cents, an eraser 6 cents and a box of crayons 6 cents, how would you find the cost of all?

16. Jack made 2 large houses. He used 6 blocks for each house. How many blocks did he use for both houses?

17. Bob and Billy each made door steps, each boy used 6 blocks. How many would they need for 5 door steps?

Multiplication Drill

18. 2 sixes are ____ 5 x 6 =____
2 x 6 = 4 sixes are ____
2 times 6 is____ 8 x six =____

19. 3 sixes are ____ 2 times 3 is____
3 x 6 =____ 2 ones + 4 are____
6 x 3 =____ 2 x 12 =____

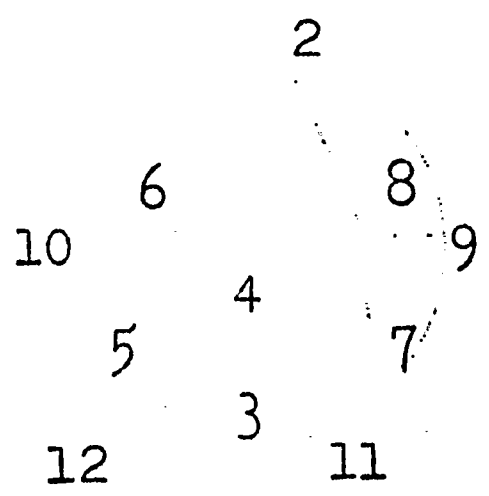
20. Mary bought 3 new pencils for 6¢ each, how much did both pencils cost?

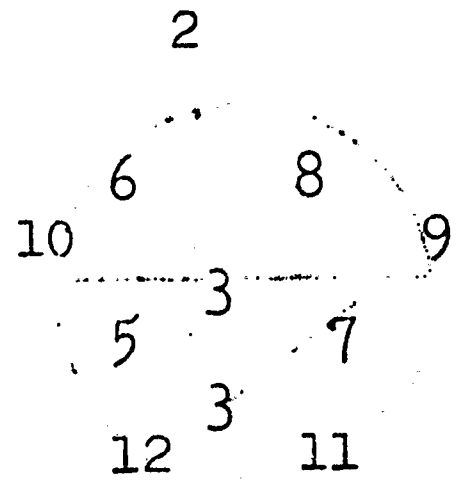
21. Joe has three piles of paper to sell. There are 6 pounds in each pile. How many pounds does he have in all?

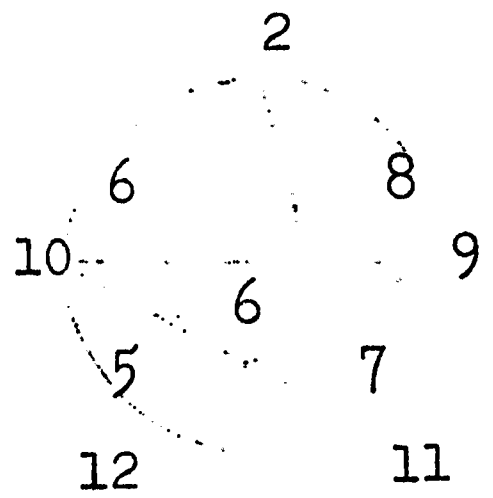
22. Bobby and Betty each spent 6¢. How much did they both spend?

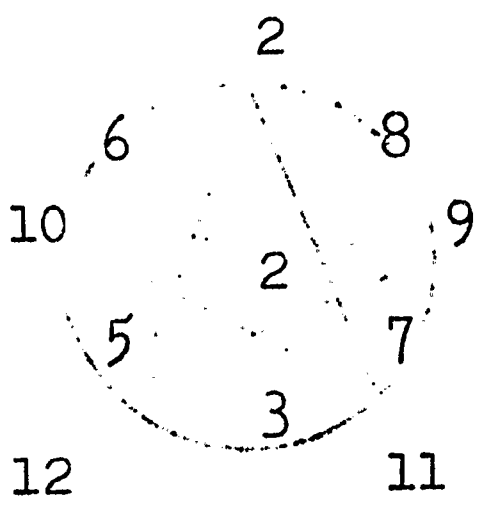
Multiplication Review

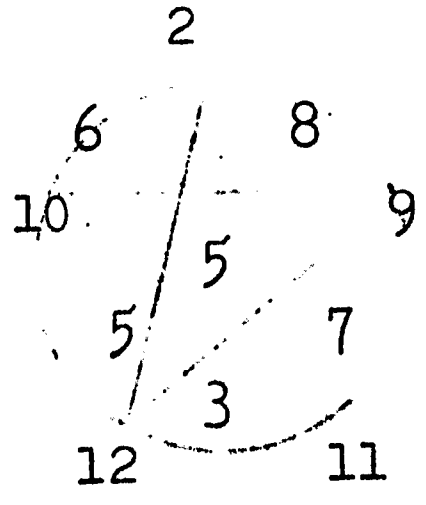
Multiply the number in the center of the star by each number inside and outside the circle. How many perfect answers can you give?











Multiplication Review

Quickly choose the correct answer:

6 x 7	42 35 56	2 x 12	48 24 44
4 x 9	26 66 36	5 x 9	54 63 45
3 x 11	43 33 36	8 x 4	48 36 32

What is the result of:

9 x 3	11 x 5	8 x 6
6 x 5	7 x 3	7 x 5
8 x 4	10 x 6	6 x 9
12 x 2	2 x 11	5 x 12
7 x 3	4 x 12	11 x 3

State the answer:

1. 6 x 6 + 2 = ?
2. 5 + 2 x 5 = ?
3. 4 x 8 - 2 = ?
4. 7 x 3 + 3 = ?
5. 8 - 5 x 3 = ?
6. 5 + 5 x 4 = ?
7. 12 - 6 x 2 = ?
8. 3 x 9 + 4 = ?
9. 6 x 6 + 2 = ?
10. 8 - 5 x 3 = ?

MULTIPLICATION REVIEW

Supply the missing number:

1. 6 x ( ) = 42
2. 12 x ( ) =24
3. 4 x ( ) = 36
4. 11 x ( ) =55
5. 3 x ( ) = 36
6. ( ) x 9 = 54
7. ( ) x 4 = 48
8. ( ) x 3 = 33
9. ( ) x = 40
10. ( ) x 7 = 35

Find the Product:

652 x 2	901 x 5	821 x 4	730 x 6	222 x 5	934 x 3

7211 x 6	8634 x 2	9210 x 6	7232 x 4	6610 x 5	4321 x 6

Review Problems:

1. What will 2 chairs cost at $134.25?
2. Multiply 179 x 6 and add 10.
3. There are 24 hours in a day. How many hours are there in 6 days?

MULTIPLICATION REVIEW

4. Find the cost of 5 acres of land at $525.75 per acre.

5. If one table costs $75.79, what will 4 tables cost?

6. Find the cost of 4 pair of shoes at $9.25 per pair.

7. At $12.45 per ticket, what will 6 railroad tickets cost?

8. How many days are there in 6 years?

9. Mary paid 5 cents a yard for ribbon, how much must she pay for 45 yards?

10. If there are a dozen pencils in a case, how many pencils are there in 6 cases?

11. In a group of 8 persons each person was given 6 tickets to sell. How many tickets will be sold if each person sells all he has?

12. John works 6 days. He earns $5.85 per day. How much money does he earn?

Multiplication Review

13. How many ounces are there in 5 pounds?

14. There are 12 children marching in 4 rows. How many children are marching?

15. A train moves at the rate of 24 miles per hour. How far does it travel in 4 hours?

16. There are 36 inches in a yard. How many inches are there in 5 yards?

17. Find the cost of 10 books at $2.25 per book.

18. Multiply 4325 by 5.

19. Find the difference between 875 x 5 and 246 x 6.

20. From the product of 12 x 7, take 24.

21. At 58¢ per dozen, find the cost of 5 dozen eggs.

22. How many days are there in 6 months?

MULTIPLICATION REVIEW

23. Find the cost of 4 rugs at $35.25 each

24. 1234 x 3 = ?

25. Multiply $734.65 x 4.

26. Take 100 from 267 and multiply the answer by 3.

27. At 30¢ each, find the cost of 6 note-books.

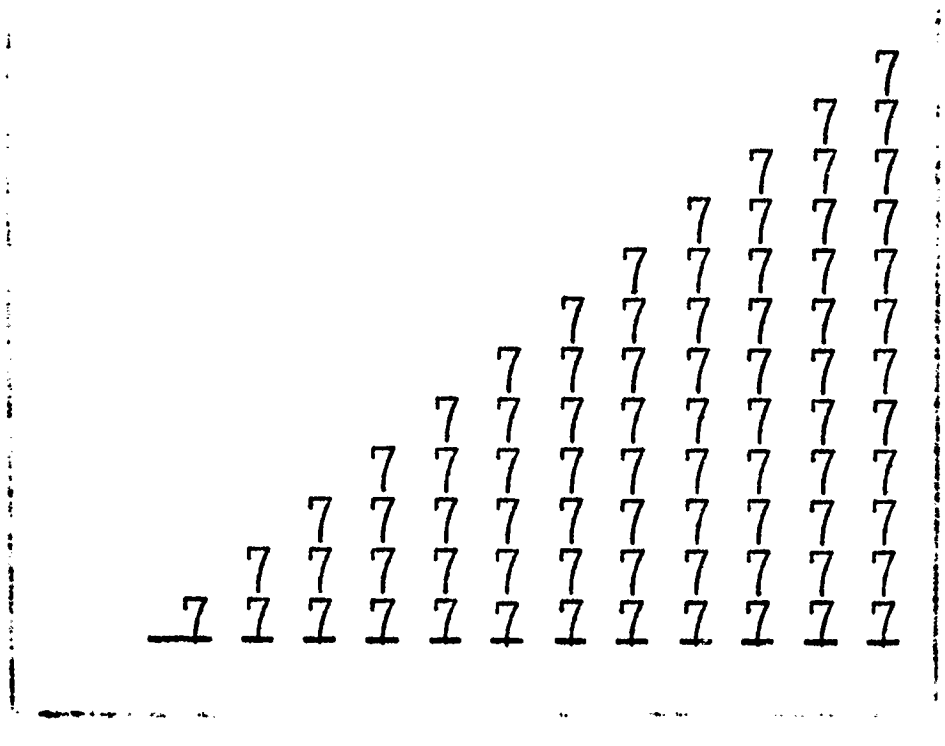
28. 6 x 3 x 2 = ? 2 x 4 x 5 = ?

29. If you save $1.25 per week, how much money will you save in a month?

30. In a room there are 5 rows of chairs. In each row there are 12 chairs. How many chairs are there in the room?

Multiplying by Seven

Add the columns of 7's from one 7 to twelve 7's.



1. Count the columns of 7's from one 7 to twelve 7's.

2. Place your answer under each line.

3. Read the columns beginning "one 7 is 7, two 7's are 14, three 7's are 21!, and so on.

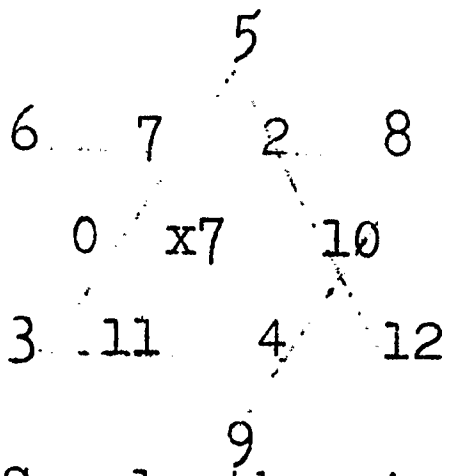
4. How many are five 7's? three 7's? six 7's? four 7's? seven 7's? ten 7's?

Learn the table.

1 x 7 =	5 x 7 =	9 x 7 =
2 x 7 =	6 x 7 =	10 x 7 =
3 x 7 =	7 x 7 =	11 x 7 =
4 x 7 =	8 x 7 =	12 x 7 =

0 x 7 = 7 x 0 =

Practice - Table of Seven



1. Begin with the number 5. Move clockwise.
2. Multiply each number on the star by the number in the center.
3. Write each answer on your paper.

Supply the missing numbers:

14 = ____ 7's	21 = ____ 7's	84 = ____ 7's
28 = ____ 7's	35 = ____ 7's	77 = ____ 7's
42 = ____ 7's	49 = ____ 7's	70 = ____ 7's

7 x 2 =	7 x 3 =	1 x 7 =	2 x 7 =
7 x 4 =	7 x 7 =	6 x 7 =	5 x 7 =
7 x 6 =	7 x10 =	10 x 7 =	9 x 7 =
7 x 0 =	7 x12 =	8 x 7 =	11 x 7 =
7 x 1 =	7 x 9 =	3 x 7 =	4 x 7 =
7 x 5 =	7 x11 =	7 x 7 =	12 x 7 =

How much must I pay for:

Two 7 - cent whistles?

Six 7 - cent brushes?

Nine 7- cent balloons?

Six 7 - cent rides?

Seven 7 - cent pencils?

Practice - Table of Seven

How much must I pay for: (Cont'd.)

Eight 7 - cent candies?

Ten 7 - cent papers?

Eleven 7 - cent rulers?

Four 7 - cent pens?

Seven 3 - cent stamps?

Seven 5 - cent crayons?

Seven 8 - cent cards?

Seven 2 - cent cakes?

Seven 10- cent knives?

Seven 7 - cent oranges?

Seven 8 - cent tops?

Seven 11 - cent pictures?

Seven 12 - cent books?

7	8	6	9	11	12	5
7	8	6	9	11	12	5
7	8	6	9	11	12	5
7	8	6	9	11	12	5
7	8	6	9	11	12	5
7	8	6	9	11	12	5
7	8	6	9	11	12	5

Drill - Multiplying by Seven

State the answer to:

6 x 7	9 x 7	7 x 7	6 x 7
7 x 8	7 x 0	10 x 7	4 x 7
7 x 3	7 x 12	7 x 11	7 x 5

7 x ( ) = 42	7 x ( ) = 7	7 x ( ) = 21
7 x ( ) = 77	7 x ( ) = 84	7 x ( ) = 35
7 x ( ) = 28	7 x ( ) = 14	7 x ( ) = 56
7 x ( ) = 49	7 x ( ) = 0	7 x ( ) = 63

3 sevens are

two sevens are

eight 7's are

9 sevens are

four 6's are

7 sevens are

10 sevens are

eleven 7's are

7 x 2 = ____ x 7

7 x 8 = ____ x 7

7 x 0 = ____ x 7

7 x 9 = ____ x 7

7 x 8 = ____ x 7

7 x 3 = ____ x 7

7 x 4 = ____ x 7

7 x 10= ____ x 7

7 x 12= ____ x 7

Practice - Multiplying by Seven

12	1	6	7	9
4			7	5
10	2	8	11	3

a.__ b.__ c.__ d.__ e.__

f.__ g.__ h.__ i.__ j.__

k.__ l.__

1. The edge of the rectangle contains 12 numbers.
2. Begin with number 6 and moving to the right multiply each number by 7.
3. Write each answer on your paper, after a letter, in order

Obey the sign and write the answers:

7 x 3 + 5 =	7 x 2 - 2 =
7 x 6 + 2 =	5 x 7 - 5 =
7 x 5 + 5 =	8 x 7 - 1 =
7 x 6 + 1 =	9 x 7 - 3 =

6		____
3		____
4		____
5	x 7 =	____
8		____
10		____
9		____
7		____

Multiplication Drill

9 x 7	6 x 7	5 x 7	4 x 7	2 x 7	7 x 7
0 x 7	8 x 7	10 x 7	21 x 7	12 x 7	11 x 7
202 x 7	301 x 7	112 x 7	211 x 7	404 x 7	313 x 7
51 x 7	80 x 7	91 x 7	40 x 7	31 x 7	50 x 7
111 x 7	121 x 7	190 x 7	181 x 7	800 x 7	701 x 7
39 x 7	63 x 7	83 x 7	73 x 7	53 x 7	43 x 7
66 x 7	47 x 7	36 x 7	29 x 7	17 x 7	84 x 7

19 x 7	58 x 7	76 x 7	58 x 7	79 x 7	57 x 7
431 x 7	650 x 7	707 x 7	802 x 7	109 x 7	206 x 7
511 x 7	821 x 7	780 x 7	862 x 7	754 x 7	638 x 7
2111 x 7	6010 x 7	8012 x 7	8108 x 7	9031 x 7	7211 x 7
4335 x 7	6212 x 7	4721 x 7	7536 x 7	8925 x 7	9732 x 7

$.87 x 7	$.66 x 7	$.45 x 7	$.98 x 7	$.58 x 7	$1.45 x 7
$3.68 x 7		$5.59 x 7	$6.83 x 7	$9.27 x 7	

Multiplication Drill

$20.17	$45.16	$35.09	$145.75
x 7	x 7	x 7	x 7

Copy and find the answers:

$.07 x 3 + $.01 = ?

$.07 x 6 + $.05 = ?

$1.00 x 7 + $.25 =

$12.00 x 7 + $1.00=

7 x 5 + 1 =
7 x 3 + 4 =
7 x 8 + 4 =
7 x 6 + 3 =
2 x 7 - 1 =
7 x 7 - 9 =
10 x 7 -10 =
11 x 7 - 7 =
7 x ( ) = 49
7 x ( ) = 35
7 x ( ) = 77
7 x ( ) = 56

( ) x 7 = 70
( ) x 7 = 24
( ) x 7 = 84
( ) x 7 = 14
7 x 7 = 7 x ____
7 x 8 = 7 x ____
7 x 5 = 7 x ____
7 x 3 = 7 x ____
7 x 9 = 9 x ____
7 x 6 = 6 x ____
7 x 11= 11 x____
7 x 4 = 4 x ____

PROBLEMS

1. There are 7 days in a week. How many days are there in 2 weeks? 8 weeks? nine weeks?

2. If a dozen pencils are in each case, how many pencils are there in 7 cases?

Multiplication Drill

Problems (Cont'd.)

3. There are 10 children marching in each of 7 rows. How many children are marching?

4. There are 12 inches in a foot. How many inches are there in 9 feet?

5. Mary paid 5 cents a yard for ribbon. How much must she pay for 7 yards?

6. There are 36 inches in a yard. How many inches are there in 2 yards? 9 yards?

7. At $.07 each, what will 12 whistles cost?

8. If a train goes 50 miles an hour, how far will it go in 7 hours?

9. At $12.50 each, what will 7 coats cost?

10. At $35.00 each, what will 7 writing desks cost?

11. If an acre of land is worth $120, what is the value of 7 acres?

12. If a man earns $52 a week, what will be earn in 7 weeks?

13. A farmer plants 7 acres of wheat each year. How many acres will be plant in 8 years?

14. Multiply $624.45 by 7.

15. There are 70 apples in a crate. How many are there in 7 crates?

Multiplication Drill

Problems (Cont'd.)

16. If there are 32 students in a class, how many students are there in 7 classes?

17. Each person in a group of 7 were given 15 tickets to sell. If each person sold all of his tickets, how many tickets were sold?

18. There are 144 square inches in a square foot. How many inches are there in 7 square feet?

19. There are 4 quarts in a gallon. How many quarts are there in 7 gallons?

20. How many ounces are there in 7 pounds?

21. How many months are there in 7 years?

22. How many days are there in 7 months?

23. There are 11 chairs in a row and there are 7 rows. How many chairs are in the room?

24. At $.07 each, what will be the cost of 2 dozen oranges?

25. What is the value of 7 chairs at $60.00 each?

26. A book is worth $2.50. What is the value of 7 books?

27. A lamp is worth $7. What is the value of 30 lamps?

28. If shoes cost $2.95 a pair, what will 7 pair cost?

Multiplication Drill

Problems (Cont.)

29. At $1.72 a ticket, what will 7 tickets cost?

30. A man works 7 days and earns $5.25 a day. How much does he earn?

31. If one table costs $250.50, what will 7 tables cost?

Practice - tell as fast as you can which number is correct:

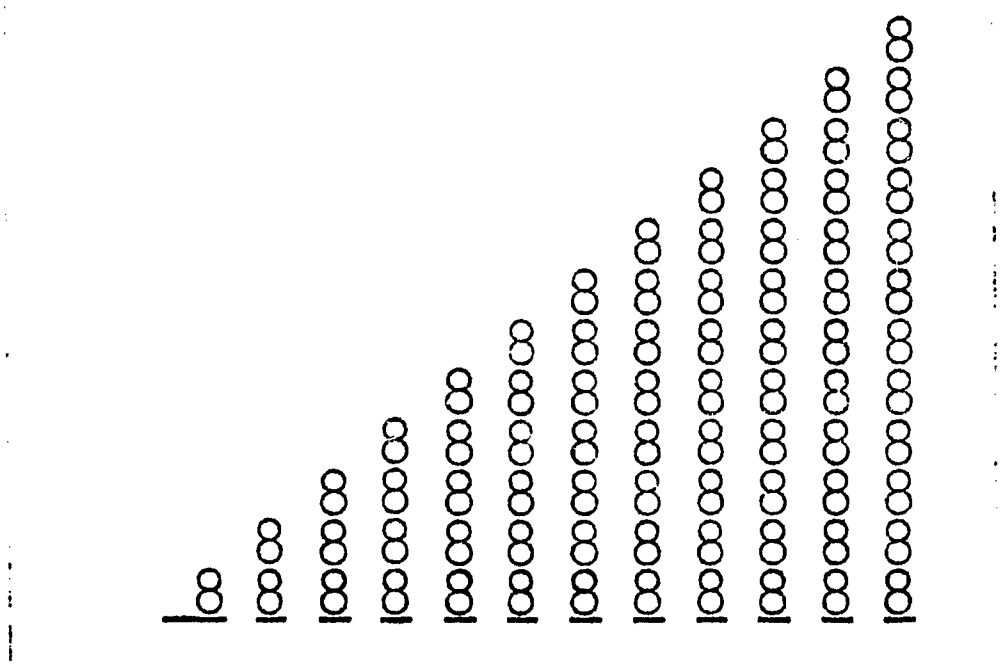
1. 12 x 7 — 77, 84, 35
2. 7 x 9 — 56, 63, 49
3. 8 x 7 — 35, 56, 70
4. 7 x 4 — 42, 28, 56
5. 3 x 7 — 49, 21, 28
6. 7 x 10 — 77, 70, 63
7. 6 x 7 — 35, 42, 84
8. 5 x 7 — 14, 35, 63
9. 11 x 7 — 84, 77, 70
10. 7 x 12 — 24, 84, 42

Find the answers:

1. 2 + 2 x 7 =
2. 5 - 1 x 7 =
3. 3 + 2 x 7 =
4. 10 - 5 x 7 =
5. 4 + 1 x 7 =
6. 3 + 4 x 7 =
7. 5 + 2 x 7 =
8. 8 + 2 x 7 =
9. 7 x 5 + 1 =
10. 7 x 4 - 3 =

Multiplying by Eight

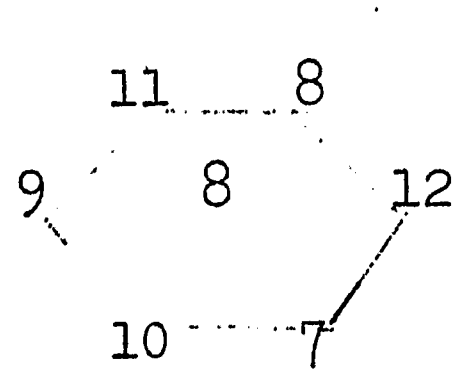
Add the columns of 8's from one 8 to twelve 8's.



1. Count the columns of 8's from one 8 to twelve 8's.
2. Place your answer under each line.
3. Read the columns beginning "one 8 is 8, two 8's are 16, three 8's are 24," and so on.
4. How many are four 8's? three 8's? six 8's? ten 8's? seven 8's? twelve 8's

1 x 8 =	5 x 8 =	9 x 8 =
2 x 8 =	6 x 8 =	10 x 8 =
3 x 8 =	7 x 8 =	11 x 8 =
4 x 8 =	8 x 8 =	12 x 8 =
	8 x 0 =	0 x 8 =

Multiplying By Eight



1. Begin with number 8 on the hexagon.
2. Moving to the right, multiply each number on the angles by the number in the center.
3. Write each answer on your paper.

A____ B____ C____ D____ E____ F____

Supply the missing numbers:

16 = ___ 8's 88 = ___ 8's 96 = ___ 8's

24 = ___ 8's 72 = ___ 8's 40 = ___ 8's

32 = ___ 8's 84 = ___ 8's 64 = ___ 8's

8 x 3 =	8 x 4 =	5 x 8 =
8 x 7 =	8 x 0 =	8 x 8 =
8 x10 =	8 x 6 =	10 x 8 =
8 x12 =	8 x 1 =	4 x 8 =
8 x 9 =	8 x 2 =	1 x 8 =
8 x11 =	8 x 5 =	6 x 8 =
3 x 8 =	7 x 8 =	12 x 8 =
11 x 8 =	2 x 8 =	9 x 8 =

Multiplying by Eight

How much must I pay for:

Eight 9-cent books?
Eight 4-cent cakes?
Eight 11-cent tops?
Eight 7-cent rides?
Eight 10-cent rulers?
Eight 12-cent knives?
Eight 8-cent cards?
Eight 3-cent pencils?
Eight 6-cent pens?
Eleven 8-cent balloons?
Four 8-cent pictures?
Ten 8-cent stamps?
Two 8-cent brushes?
Two 8-cent books?
Twelve 8-cent crayons?
Nine 8-cent boxes?
Eight 8-cent candies?
Seven 8-cent apples?

8	10	9	12	6	11
8	10	9	12	6	11
8	10	9	12	6	11
8	10	9	12	6	11
8	10	9	12	6	11
8	10	9	12	6	11
8	10	9	12	6	11
8	10	9	12	6	11

Multiplying By Eight

Drill - State the answer to:

7 x 8	8 x 0	5 x 8	8 x 12
8 x 8	8 x 12	9 x 8	6 x 8
8 x 3	10 x 8	8 x 11	8 x 4

8 x ( ) = 48	8 x ( ) = 24	8 x ( ) = 72
8 x ( ) = 64	8 x ( ) = 88	8 x ( ) = 96
8 x ( ) = 32	8 x ( ) = 16	8 x ( ) = 8
8 x ( ) = 40	8 x ( ) = 56	8 x ( ) = 80

eight 8's are
7 eights are
eleven 8's are
9 eights are

6 eights are
twelve eights are
10 eights are
five 8's are

8 x 6 = ____ x 8	8 x 11 = ____ x 8
8 x 9 = ____ x 8	8 x 10 = ____ x 8
8 x 0 = ____ x 8	8 x 12 = ____ x 8
8 x 2 = ____ x 8	8 x 7 = ____ x 8
8 x 8 = ____ x 8	

Obey the signs and write the answers:

8 x 6 + 1 =	9 x 8 - 2 =
8 x 3 + 5 =	10 x 8 -10 =
8 x 2 + 3 =	5 x 8 - 5 =
8 x 4 + 2 =	7 x 8 - 6 =

Multiplying By Eight

Drill - State the answer to:

7 x 8	8 x 0	5 x 8	8 x 12
8 x 8	8 x 12	9 x 8	6 x 8
8 x 3	10 x 8	8 x 11	8 x 4

8 x ( ) = 48	8 x ( ) = 24	8 x ( ) = 72
8 x ( ) = 64	8 x ( ) = 88	8 x ( ) = 96
8 x ( ) = 32	8 x ( ) = 16	8 x ( ) = 8
8 x ( ) = 40	8 x ( ) = 56	8 x ( ) = 80

eight 8's are
7 eights are
eleven 8's are
9 eights are

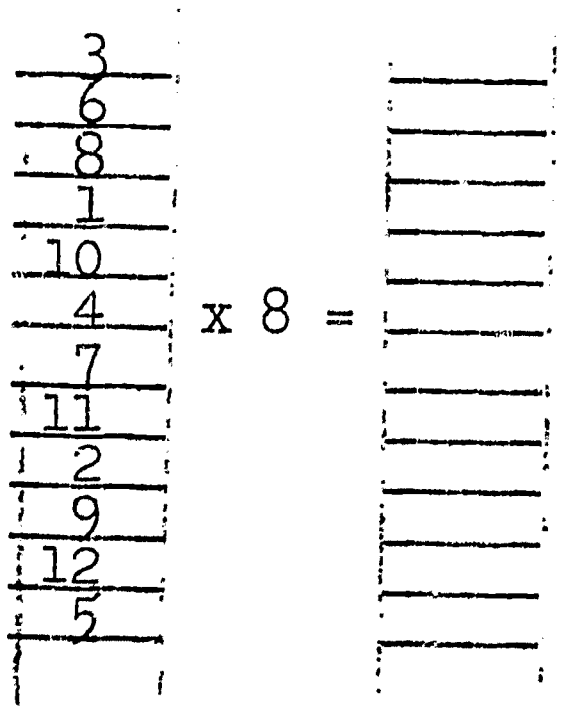
6 eights are
twelve eights are
10 eights are
five 8's are

8 x 6 = ____ x 8	8 x 11 = ____ x 8
8 x 9 = ____ x 8	8 x 10 = ____ x 8
8 x 0 = ____ x 8	8 x 12 = ____ x 8
8 x 2 = ____ x 8	8 x 7 = ____ x 8
8 x 8 = ____ x 8	

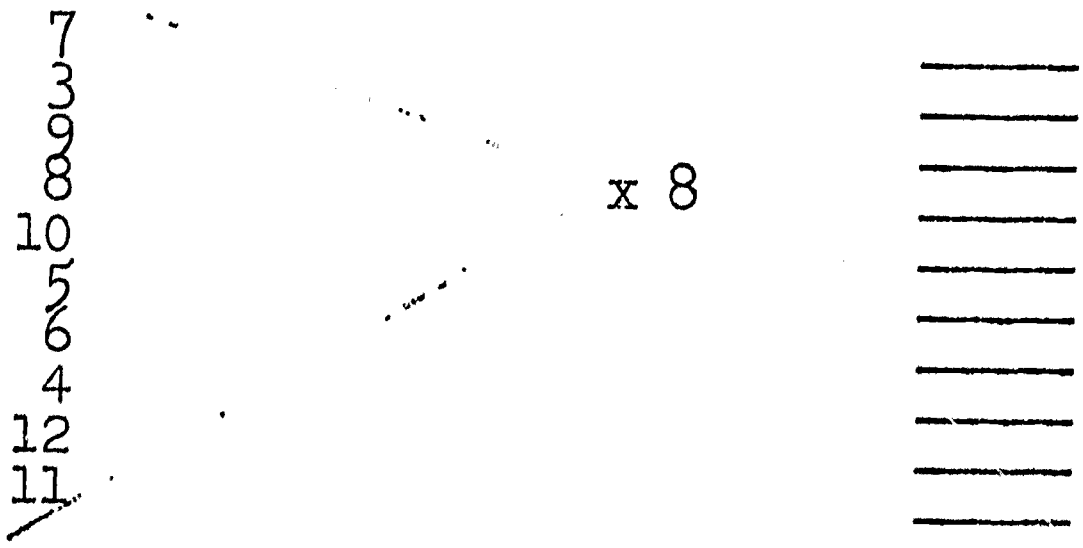
Obey the signs and write the answers:

8 x 6 + 1 =	9 x 8 - 2 =
8 x 3 + 5 =	10 x 8 -10 =
8 x 2 + 3 =	5 x 8 - 5 =
8 x 4 + 2 =	7 x 8 - 6 =

Multiplying By Eight



1. There are twelve numbers on the ladder
2. Beginning at the bottom, multiply each number by 8.
3. Write each answer on your paper.



Multiplication Drill

8 x 8	3 x 8	12 x 8	9 x 8	2 x 8	5 x 8
4 x 8	10 x 8	0 x 8	6 x 8	11 x 8	7 x 8
101 x 8	81 x 8	301 x 8	70 x 8	111 x 8	41 x 8
51 x 8	110 x 8	90 x 8	311 x 8	61 x 8	401 x 8
211 x 8	801 x 8	910 x 8	806 x 8	700 x 8	405 x 8
62 x 8	24 x 8	120 x 8	421 x 8	621 x 8	432 x 8
56 x 8	64 x 8	32 x 8	25 x 8	18 x 8	24 x 8

Multiplication Drill

27 x 8	42 x 8	55 x 8	19 x 8	72 x 8	88 x 8
331 x 8	480 x 8	205 x 8	811 x 8	203 x 8	712 x 8
612 x 8	808 x 8	713 x 8	216 x 8	422 x 8	505 x 8
5111 x 8	7080 x 8	6021 x 8	5012 x 8	9010 x 8	7211 x 8
2314 x 8	9035 x 8	6235 x 8	4605 x 8	8816 x 8	7813 x 3
$.67 x 8	$.49 x 8	$.36 x 8	$.75 x 8	$.66 x 8	$1.50 x 8
$2.75 x 8	$5.63 x 8	$7.29 x 8	$9.10 x 8	$40.25 x 8	$53.27 x 8
	$36.48 x 8	$125.25 x 8		$665.35 x 8	

Multiplication Drill

Copy and find the answers:

$.08 x 3 + $.01 = ? $1.00 x 8 + $.35 = ?
$.08 x 6 - $.03 = ? $12.00x 8 + $1.00= ?

8 x 7 + 1 =
8 x 8 + 5 =
8 x 3 + 6 =
8 x 5 + 9 =
3 x 8 - 4 =
7 x 8 - 6 =
10 x 8 - 10 =
11 x 8 - 8 =
8 x ( ) = 56
8 x ( ) = 72
8 x ( ) = 88
8 x ( ) = 96

( ) x 8 = 32
( ) x 8 = 64
( ) x 8 = 56
( ) x 8 = 40
( ) x 8 = 16
8 x 8 =
8 x 7 =
8 x 4 =
8 x 11 =
8 x 9 =
8 x 6 =
8 x 12 =
8 x 3 =

Problems

State the correct answers:

1. There are 7 days in a week. How many days are there in 8 weeks?

2. There are 8 pencils in a box. How many pencils are in a dozen boxes?

3. If a train goes 18 miles per hour, how far will it go in 6 hours?

4. At $80.00 each, what will 9 desks cost?

5. If a chair is valued at $12.50, what is the value of 8 chairs?

Multiplication Drill

Problems: (Cont'd.)

6. If ribbon is worth 8¢ per yard, what will 22 yards of ribbon cost?

7. There are 12 inches in a foot. How many inches are there in 8 feet?

8. If an acre of land is worth $3.50, what will 8 acres of land cost?

9. There are 36 inches in a yard. How many inches are there in 8 yards?

10. There are 26 students in a class. How many students will there be in 8 classes of the same size?

11. There are 144 square inches in a square foot, how many inches are there in 8 square feet?

12. How many quarts are there in 8 gallons?

13. How many pecks are there in 8 bushels?

14. How many minutes are there in 8 hours?

15. How many ounces are there in 8 pounds?

16. Find the cost of 8 books at $2.75 per book.

17. Find the cost of 8 houses at $4235 per house.

18. There are eight buttons on a dress. How many buttons are there on 36 dresses

19. A box weighs 318 pounds. What is the weight of 8 boxes having the same weight?

20. What is the cost of 8 hats at $8.95 each?

Multiplication Drill

Problems (Cont'd.)

21. What must you pay for 4 neckties at $3.75 each?

22. A lamp costs $8.45. Find the cost of 8 lamps.

23. If shoes cost $5.98 a pair, how much will 8 pairs of shoes cost?

24. If a railroad ticket costs $16.28, what will 8 tickets cost?

25. A man works 8 days and earns $8.55 per day. How much money does the man earn?

26. How many days are there in 8 months? in 8 weeks?

27. A baseball team bought 9 sweaters at $4.15 each. How much did the sweaters cost?

28. Find the cost of 3 rugs at $8.80 a piece.

29. In an orchard there are 42 trees in a row. How many trees are there in 8 rows?

30. A suit of clothes cost $45.75. Find the cost of 8 suits.

31. There are 8 dozen eggs in a crate. How many eggs are there in 2 crates?

32. At 80¢ a yard, find the cost of 12 yards of cloth.

Multiplication Drill

Problems (Cont'd)

33. Multiply $624.45 by 8.

34. At $1575 each, what will 8 automobiles cost?

35. Multiply 382 by 8 and add 4.

36. Multiply 892 by 8 and subtract 5.

37. Mr. B. puts $8.00 in the bank every week. How much money will he have in the bank at the end of a year?

38. If a train goes 35 miles per hour, how far will it travel in 8 hours?

39. A team wins 8 games in a week. How many games will it win in 9 weeks?

40. Find the cost of 8 tables at $12.75 each.

41. The rent for an apartment is $45.25 per month. What will the rent be for 8 months? for 1 year?

42. What is the difference between 8 x 75 and 46 x 8?

43. Find the sum of 8 x 27 and 8 x 54.

44. Find the difference between 8 x 62 and 33 x 8.

45. Multiply $240.85 by 8 and subtract $110.25.

Multiplication Drill

Tell as fast as you can which number is correct:

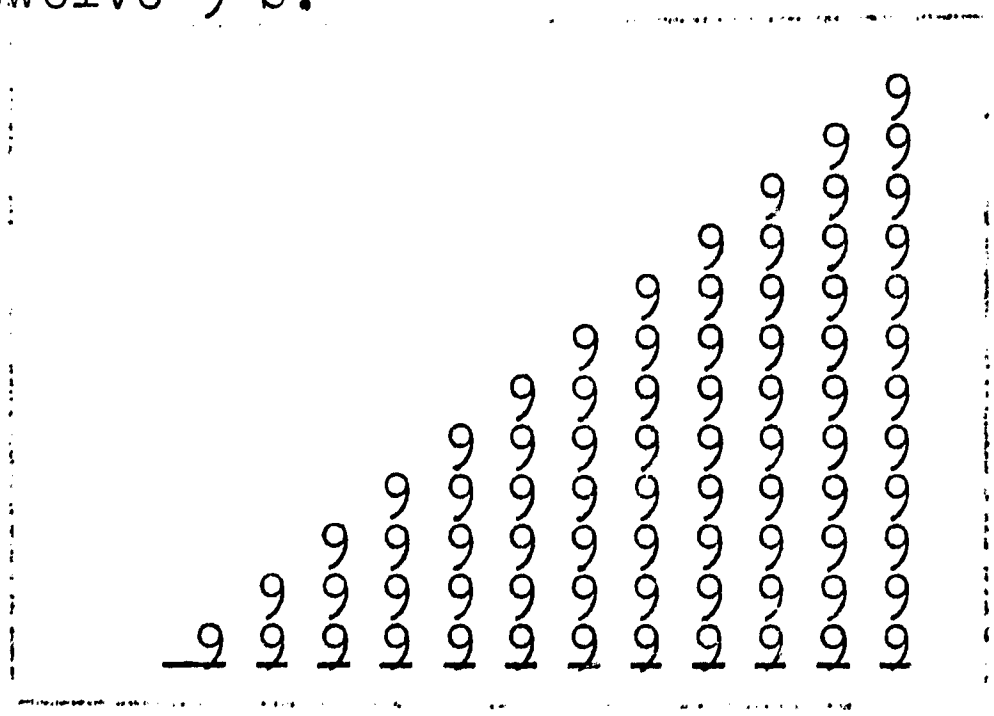
1. 8 x 8 — 32 / 64 / 56
2. 9 x 8 — 64 / 80 / 72
3. 8 x 3 — 32 / 24 / 48
4. 8 x 6 — 24 / 48 / 56
5. 10 x 8 — 80 / 88 / 96
6. 8 x 12 — 56 / 96 / 36
7. 4 x 8 — 88 / 56 / 32
8. 11 x 8 — 40 / 88 / 96
9. 8 x 7 — 56 / 72 / 32
10. 8 x 5 — 64 / 35 / 40

Find the answers:

1. 3 + 2 x 8 =
2. 8 - 1 x 8 =
3. 4 + 5 x 8 =
4. 8 x 2 - 6 =
5. 9 x 8 + 1 =
6. 5 + 6 x 8 =
7. 8 x 8 + 2 =
8. 7 x 8 - 6 =
9. 12 x 8 + 1 =
10. 8 x 11 - 8 =
11. 9 x 8 - 10 =
12. 8 x 4 + 7 =
13. 8 x 6 - 8 =
14. 6 + 6 x 8 =

Multiplying By Nine

Add the columns of 9's from one 9 to twelve 9's.



1. Count the columns of 9's from one 9 to twelve 9's.

2. Place your answer under each line.

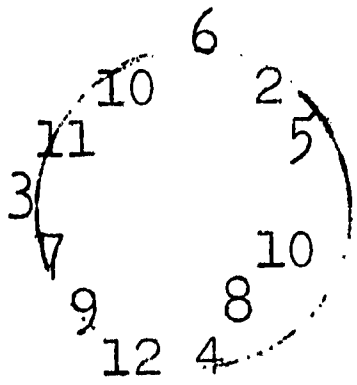
3. Read the columns beginning "one 9 is 9, two 9's are 18, three 9's are 27, four 9's are 36 and so on . . .

4. How many are three 9's? five 9's? eight 9's? nine 9's? six 9's?

Learn the table:

1 x 9 =	5 x 9 =	9 x 9 =
2 x 9 =	6 x 9 =	10 x 9 =
3 x 9 =	7 x 9 =	11 x 9 =
4 x 9 =	8 x 9 =	12 x 9 =
0 x 9 =	9 x 0 =	

Practice - Table of Nine



1. There are 12 arrows on the circle.
2. Beginning with 6 multiply each number on the arrow by 9.
3. Write each answer on your paper.

A.___B.___C.___D.___E.___F.___G.___H.___
I.___J.___K.___L.___

Supply the missing numbers:

18 = __ 9's	27 = ___ 9's	45 = ___ 9's
36 = __ 9's	54 = ___ 9's	63 = ___ 9's
72 = __ 9's	81 = ___ 9's	90 = ___ 9's

State the answer:

9 x 4	9 x 10	5 x 9	4 x 9
9 x 0	8 x 9	7 x 9	6 x 9
9 x 5	9 x 12	9 x 9	8 x 9
9 x 7	9 x 9	11 x 9	10 x 9
9 x 6	9 x 11	1 x 9	12 x 9
9 x 3	9 x 2	3 x 9	2 x 9

How much will Mary pay for:

Nine 3 - cent stamps? _____

Nine 5 - cent apples? _____

Nine 10 -cent books? _____

Nine 7- cent rides? _____

Nine 6- cent cakes? _____

Nine 12 - cent knives?_____

Nine 2 - cent stamps? _____

Practice - Multiplying By Nine

How much will Mary pay for:

Nine 4 - cent cookies?_____

Nine 9 - cent cards?_____

Nine 8 - cent papers?_____

Eleven 9 - cent pens?_____

Five 9 - cent books?_____

Three 9 - cent pictures?____

Eight 9 - cent boxes?_____

Seven 9 - cent pads?_____

Twelve 9 - cent pencils?____

Four 9 - cent articles?____

Six 9 - cent balls?_____

Ten 9 - cent pins?_____

Two 9 - cent brushes?_____

9	12	11	10	8	5
9	12	11	10	8	5
9	12	11	10	8	5
9	12	11	10	8	5
9	12	11	10	8	5
9	12	11	10	8	5
9	12	11	10	8	5
9	12	11	10	8	5
9	12	11	10	8	5

Drill - Multiplying by Nine

7 x 9	9 x 0	5 x 9	9 x 4
9 x 9	9 x 12	9 x 8	6 x 9
3 x 9	8 x 9	9 x 11	2 x 9

9 x ( ) = 54	9 x ( ) = 27	9 x ( ) = 72
9 x ( ) = 81	9 x ( ) = 99	9 x ( ) = 9
9 x ( ) = 36	9 x ( ) = 63	9 x ( ) = 0
9 x ( ) = 45	9 x ( ) = 108	9 x ( ) = 90

nine 7's are
8 nines are
twelve 9's are
7 nines are

5 nines are
eleven 9's are
10 nines are
4 nines are

9 x 5 = ___ x 9	9 x 6 = ___ x 9
9 x 8 = ___ x 9	9 x 9 = ___ x 9
9 x 10= ___ x 9	9 x 7 = ___ x 9
9 x 12- ___ x 9	9 x 4 = ___ x 9
9 x 11= ___ x 9	

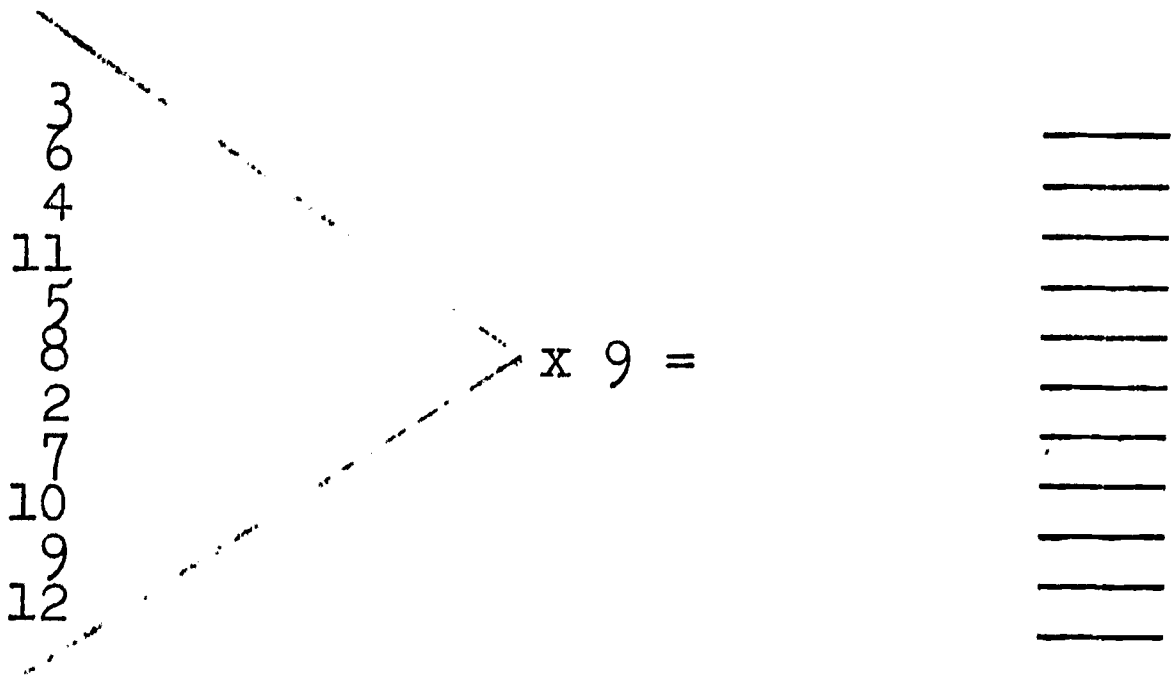
3	___
11	___
6	___
10	___
12x9=	___
7	___
5	___
9	___
4	___
8	___

1. There are 10 numbers in the blank blocks.
2. Beginning at the top, multiply each number by 9.
3. Write each answer on your paper.

Practice - Multiplying By Nine

Obey the signs and write the answers:

9 x 9 - 1 =	11 x 9 - 9 =
9 x 3 + 3 =	6 x 9 + 4 =
9 x 2 + 2 =	4 x 9 + 4 =
9 x 5 - 5 =	7 x 9 - 3 =



9	3	12	8	2	5	4
x 9	x 9	x 9	x 9	x 9	x 9	x 9

7	10	0	6	11	1	41
x 9	x 9	x 9	x 9	x 9	x 9	x 9

Multiplication Drill

111 x 9	411 x 9	501 x 9	71 x 9	301 x 9	61 x 9	610 x 9
90 x 9	201 x 9	50 x 9	510 x 9	311 x 9	910 x 9	307 x 9
504 x 9	906 x 9	800 x 9	53 x 9	23 x 9	410 x 9	621 x 9
542 x 9	223 x 9	27 x 9	32 x 9	18 x 9	42 x 9	44 x 9
62 x 9	73 x 9	34 x 9	15 x 9	54 x 9	19 x 9	75 x 9
331 x 9	205 x 9	702 x 9	911 x 9	480 x 9	702 x 9	609 x 9
113 x 9	116 x 9	505 x 9	706 x 9	218 x 9	6111 x 9	8070 x 9

Multiplication Drill

7031 x 9	6012 x 9	8010 x 9	7211 x 9	2313 x 9
8034 x 9	4605 x 9	9191 x 9	7213 x 9	8824 x 9
$.54 x 9	$.47 x 9	$.38 x 9	$.63 x 9	$.82 x 9
$.29 x 9	$1.47 x 9	$2.63 x 9	$5.65 x 9	$7.38 x 9
$9.10 x 9	$50.35 x 9	$46.26 x 9	$37.18 x 9	$42.35 x 9
$132.64 x 9	$537.82 x 9			

Copy and find the answers:

$.09 x 2 + $.02 = ?

$.09 x 6 - $.04 = ?

$1.00 x 9 + $.45 = ?

$15.00 x 9 - $1.00 = ?

Multiplication Drill

Find the answers:

9 x 4 + 2 = ?	9 x ( ) = 81	9 x 9 =
9 x 8 + 1 = ?	9 x ( ) = 99	9 x 11=
9 x 5 + 5 = ?	9 x ( ) = 18	9 x 7 =
9 x 3 + 3 = ?	9 x ( ) = 108	9 x 4 =
3 x 9 - 7 = ?	( ) x 9 = 36	9 x 6 =
7 x 9 - 3 = ?	( ) x 9 = 72	9 x 8 =
10 x 9 - 10= ?	( ) x 9 = 63	9 x 12=
11 x 9 - 9= ?	( ) x 9 = 90	9 x 15=

Problems

State the correct answers:

1. At $1.25 each, what will 9 caps cost?

2. A yard of goods costs $1.15, what will be the cost of 9 yards?

3. There are 19 students in a class, how many students will there be in 9 classes of the same size?

4. If a table is worth $15.25, what will 9 tables be worth?

5. There are 9 square feet in a swuare yard. How many square feet are there in 27 square yards?

6. Find the cost of 8 books at $3.75 per book.

7. If a package weighs 9 pounds, how much will 19 packages weigh?

8. What must you pay for 9 hats at $6.25 each?

Multiplication Drill

Problems: (Cont'd.)

9. How many ounces are there in 9 pounds?

10. Multiply 8135 x 9 and add 2.

11. If there are 29 apples in a basket, how many apples will there be in 9 baskets.

12. A box of candy costs $1.59, find the cost of 9 boxes.

13. How many days are there in 9 weeks?

14. At 75¢ per yard, find the cost of 9 yards of ribbon.

15. Find the cost of 9 dozen oranges at 55¢ per dozen.

16. Multiply 675 by 9 and subtract 125.

17. Multiply 586 by 9 and add 100.

18. The rent for an apartment is $62.50 per month. What will be the rent for 9 months?

19. Find the sum of 9 x 49 and 62 x 9.

20. Multiply $565.85 by 9.

21. If a suit of clothes cost $36.95, what will 9 suits cost?

22. There are 9 dozen eggs in a crate, how many dozen are there in 12 crates?

23. A student spells 25 words correctly each day for 9 days, how many words has he spelled correctly?

24. How many inches are there in 9 yards?

Multiplication Drill

Problems: (Cont'd.)

25. If the perimeter of a square measures 36 inches, what will be the measurement of 9 squares of the same size?

26. Allowing 5 yards of cloth for a suit how many yards will be needed for 9 suits?

27. Mrs. Brown is making curtains for her windows. If 5 yards of good are needed for each window, how many yards will she need for 9 windows?

28. How many hours are there in 9 days?

29. A man travels 9 miles each day in going to and from his work. How far will he travel in 24 days?

30. How many sheets of paper will there be in 9 reams of 500 sheets each?

31. There are 320 rods in a mile. How many rods are there in 9 miles?

32. If Mr. Jones used 9 gallons of gasoline each week, how many gallons will be use in a year?

33. If a family uses 2 quarts of milk every day, how many quarts of milk will be needed in the month of April?

34. In a certain regiment there are 2860 soldiers: How many soldiers are there in 9 regiments of the same size?

35. Mrs. White pays $62.50 per month for an apartment. How much rent does she pay if she lives in the apartment 9 months

Multiplication Drill

Problems: (Cont'd.)

36. Multiply 468 by 9 and then multiply by 2.

37. A barrel of flour weighs 196 pounds, find the weight of 9 barrels.

38. Find the cost of 9 charis at $47.35 each and 9 tables at $15 each.

39. Find the sum of 287 x 9 and 9 times 675.

40 Take 49 from the product of 9 times 684.

41. Multiply $734.65 by 9 and subtract 9 x $135.72 from the product.

42. There is a distance of 987 miles between 2 cities. How many miles does a man travel if he makes 9 trips per year?

43. Subtract $247.63 from $951.27 and multiply the answer by 9.

44. Add $376.25 and $14 and multiply the answer by 9.

Practice - Multiplying by Nine

Tell as fast as you can which number is the correct answer.

1. 9 x 3 — 36, 81, 27
2. 9 x 8 — 54, 45, 72
3. 6 x 9 — 72, 36, 54
4. 9 x 11 — 99, 108, 72
5. 12 x 9 — 45, 108, 99
6. 9 x 9 — 27, 54, 81
7. 4 x 9 — 18, 45, 36
8. 9 x 10 — 72, 90, 81
9. 5 x 9 — 45, 63, 90
10. 9 x 7 — 63, 81, 108

Find the answers:

1. 4 x 2 x 9 =
2. 9 - 1 x 8 =
3. 7 + 2 x 9 =
4. 9 x 4 - 6 =
5. 7 + 3 x 9 =
6. 6 + 5 x 9 =
7. 9 x 9 - 3 =
8. 9 - 4 x 9 =
9. 6 x 9 - 4 =
10. 5 + 6 x 9 =
11. 15 - 5 x 9 =
12. 20 - 18 x 9 =
13. 5 + 4 x 9 =
14. 6 + 2 x 9 =
15. 12 - 8 x 4 =

ADULT BASIC EDUCATION

WORK BOOK

IN

BASIC ARITHMETIC

MULTIPLICATION OF WHOLE NUMBERS FOR INSTRUCTION OF ADULTS

4. PART II

Danbury Public Schools
Office of Adult Education
Danbury, Connecticut
1966 - 1967

LEARNING TO MULTIPLY

Part I

Drill Exercises
Multiplying By:
Two through Nine (inclusive)

Part II

Drill Exercises
Multiplying By:
Ten through Twelve (inclusive)
and
Miscellaneous Drills

To the Instructors:

This section of the Adult Basic Education Workbook in Arithmetic is an extension of the teaching materials for the Instructor and drill material for the adult students.

Drill exercises in multiplying by ten through 12 inclusive and miscellaneous drills are contained in this section. It is expected that this material will be supplemented by additional exercises and drill in order to adequately meet the needs of the students.

Acknowledgement and appreciation is expressed to Minnie M. Graham, Specialist in Adult Education, Baltimore, Maryland, for authorization to reproduce contents of this workbook.

Frank R. Repole, Ed.D.
Director of Adult Education
Danbury, Connecticut.

TABLE OF CONTENTS
(Part I)

TABLE OF CONTENTS
(Part II)

Multiplying By Ten

										1
									10	1
								10	10	1
							10	10	10	1
						10	10	10	10	1
					10	10	10	10	10	1
				10	10	10	10	10	10	1
			10	10	10	10	10	10	10	1
		10	10	10	10	10	10	10	10	1
	10	10	10	10	10	10	10	10	10	1
10	10	10	10	10	10	10	10	10	10	1

1. Count the columns of 10's from one 10 to twelve 10's.

2. Place your answer under each line.

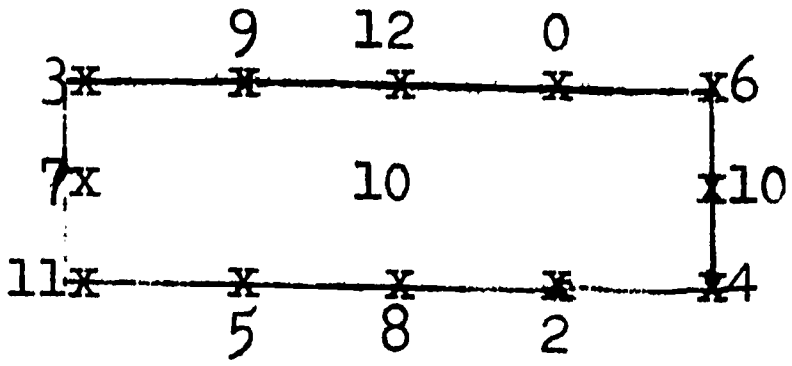
3. Read the columns beginning "one 10 is 10, two 10's are 20, three 10's are 30" and so on.

4. How many are six 10's? two 10's? twelve 10's? nine 10's? eleven 10's?

Learn the table:

1 x 10 =	5 x 10 =	9 x 10 =
2 x 10 =	6 x 10 =	10 x 10 =
3 x 10 =	7 x 10 =	11 x 10 =
4 x 10 =	8 x 10 =	12 x 10 =
	0 x 10 =	10 x 0 =

Practice - Table of Ten



a.___ b.___ c.___ d.___
e.___ f.___ g.___ h.___
i.___ J.___ k.___ l.___

1. There are 12 x's on the rectangle.
2. Beginning with the x marked 3 and moving to the right, multiply each number by 10.
3. Write each answer on your paper.

Supply the missing numbers:

20 = ___ 10's 50 = ___ 10's 80 = ___ 10's
40 = ___ 10's 100 = ___ 10's 70 = ___ 10's
60 = ___ 10's 110 = ___ 10's 30 = ___ 10's

10 x 4 = 10 x 7 = 8 x 10 =
10 x 9 = 10 x 10 = 5 x 10 =
10 x 0 = 10 x 3 = 1 x 10 =
10 x 12 = 10 x 11 = 9 x 10 =
10 x 6 = 10 x 5 = 6 x 10 =
7 x 10 = 11 x 10 = 12 x 10 =
8 x 10 = 2 x 10 =

Practice - Multiplying By Ten

How much must John pay for:

Ten 7 cent rides? ____

Ten 11 cent erasers? ____

Ten 5 cent cards? ____

Ten 8 cent rulers? ____

Ten 4 cent stamps? ____

Ten 12 cent articles? ____

Ten 4 cent stamps? ____

Ten 9 cent pictures? ____

Ten 6 cent papers? ____

Ten 10 cent notebooks? ____

Ten 8 cent cakes? ____

Twelve 10 cent flowers? ____

One 10 cent stamp? ____

Five 10 cent stickers? ____

Eleven 10 cent pins? ____

Ten 3 cent marbles? ____

Four 10 cent pencils? ____

Eight 10 cent pads? ____

Seven 10 cent books? ____

Six 10 cent balls? ____

Nine 10 cent pens? ____

Add:		
10	20	11
10	20	11
10	20	11
10	20	11
10	20	11
10	20	11
10	20	11
10	20	11
10	20	11
10	20	11
10	20	11
10	20	11

12	9
12	9
12	9
12	9
12	9
12	9
12	9
12	9
12	9
12	9

Drill - Multiplying By Ten

2 x 10 =	5 x 10 =	10 x 6 =	7 x 10 =
7 x 10 =	10 x 10 =	10 x 8 =	10 x 9 =
6 x 10 =	12 x 10 =	10 x 11 =	8 x 10 =

10 x ( ) = 120	10 x ( ) = 110
10 x ( ) = 80	10 x ( ) = 90
10 x ( ) = 40	10 x ( ) = 70
10 x ( ) = 20	10 x ( ) = 50

10 x ( ) = 0
10 x ( ) = 10
10 x ( ) = 40
10 x ( ) = 30

ten 11's are	seven 10's are
9 tens are	ten 9's are
eight 10's are	eleven 10's are
10 twelves are	6 tens are

10 x 8 = ___ x 10	10 x 0 = ___ x 10
10 x 10 = ___ x 10	10 x 4 = ___ x 10
10 x 6 = ___ x 10	10 x 5 = ___ x 10
10 x 3 = ___ x 10	10 x 1 = ___ x 10
10 x 7 = ___ x 10	10 x 8 = ___ x 10
10 x 11 = ___ x 10	10 x 12 = ___ x 10

Practice - Multiplying By Ten

8		____
12		____
6		____
2		____
7	x 10 =	____
9		____
11		____
3		____
10		____
4		____

Obey the signs and write the answers:

10 x 10 - 10 =	11 x 10 - 10 =
10 x 9 + 9 =	6 x 10 - 4 =
10 x 3 + 10 =	8 x 10 - 8 =
10 x 6 + 6 =	2 x 2 x 10 =

Multiply the number at the top by the number on the bottom of the line:

10	10	8	10	11	10
12	10	9	10	7	10
____	____	____	____	____	____

Multiplication Drill

Find the product of:

1.	5 x 10	6.	2 x 10
2.	10 x 8	7.	3 x 10
3.	6 x 10	8.	10 x 3
4.	10 x 9	9.	10 x 4
5.	4 x 10	10.	7 x 10

What easy way do you see of multiplying 10 by any number? of multiplying any number by 10?

State the missing numbers:

1.	20¢ = _____	dimes	6.	50 = _____	10's
2.	50¢ = _____	dimes	7.	70 = _____	10's
3.	90¢ = _____	dimes	8.	60 = _____	10's
4.	30¢ = _____	dimes	9.	40 = _____	10's
5.	80¢ = _____	_____	10.	90 = _____	10's

How many dimes can you get for $1.00? for $2.00? for $3.00?

1. Multiply 5 by 10.
2. Multiply 5 by 100.
3. Multiply 5 by 200.
4. Multiply 12 x 40.

Multiplication Drill

4 x 10	7 x 10	10 x 10	9 x 10	5 x 10
0 x 10	3 x 10	11 x 10	8 x 10	2 x 10
14 x 10	21 x 10	19 x 10	18 x 10	31 x 10
16 x 10	41 x 10	17 x 10	51 x 10	15 x 10
20 x 10	30 x 10	40 x 10	50 x 10	60 x 10
12 x 10	6 x 10	13 x 10	61 x 10	70 x 10

Multiplying By Powers of 10

To multiply a whole number by 10, annex a zero; to multiply by 100, annex two zeros; to multiply by 1000 annex three zeros.

27 x 10	58 x 10	69 x 10	92 x 10	87 x 10
325 x 10	642 x 10	815 x 10	927 x 10	898 x 10
17 x 100	18 x 100	35 x 100	125 x 100	1252 x 100
17 x 100	18 x 100	35 x 100	125 x 100	1252 x 100
7 x 1000	18 x 1000	37 x 1000	215 x 1000	2152 x 1000
$.62 x 10	$5.32 x 10	$.59 x 10	$2.77 x 10	$32.50 x 10

Multiplication by Annexing a Zero

1. You have learned the short way of multiplying by the powers of 10 -

   2 x 10 = 20 2 x 100 = 200

   2 x 1000 = 2000

2. Here is a short way of multiplying numbers by annexing a zero.

If you have an example like 30 x 5, you can think "3 x 5 = ;5" and then annex a zero to the 15. The answer is 150.

Or, you can think "5 x 3 = 15" and annex a zero to the 15 and the answer is 150 as before. It makes no difference which way you multiply. The answer is the same. Here are other examples of the same way of multiplying.

7 x 20 would be <u>thinking</u> 7 x 2 - 14 and annexing a zero thus giving the answer 140. Try these examples without using a pencil:

30 x 3	60 x 3	300 x 2
40 x 2	70 x 5	400 x 3
50 x 4	80 x 6	500 x 6
2 x 30	2 x 60	6 x 20
4 x 20	5 x 30	40 x 5
3 x 30	2 x 80	80 x 3
2 x 40	3 x 90	9 x 40
30 x 2	7 x 30	5 x 90

Multiplication Drill

Can you do the same for these examples:

2 x 300	2 x 600	6 x 100
4 x 200	5 x 300	400 x 5
3 x 300	2 x 800	800 x 3
2 x 400	3 x 900	9 x 100
300 x 2	7 x 300	500 x 9

Can you obey the signs and give the answer:
to these examples?

2 + 2 x 30	5 - 3 x 40
3 + 1 x 20	6 - 5 x 90
10 x 4 - 5	10 x 7 - 5

Copy and find the answers:

$.10 x 3 + .03 = ?
$.10 x 5 - .05 = ?
$1.00 x 10 - $1.00 = ?
$1.50 x 10 - $5.00 = ?

10 x 4 - 20 = ?		10 x ( ) = 90
8 x 10 - 5 = ?		10 x ( ) = 50
10 x 4 - 10 = ?		10 x ( ) = 80
3 x 10 - 15 = ?		10 x ( ) = 100
4 x 10 + 4 = ?		( ) x 10 = 40
9 x 10 + 9 = ?		( ) x 10 = 60
10 x 6 + 2 = ?		( ) x 10 = 70
11 x 10 - 10 = ?		( ) x 10 = 120
10 x 9 =	10 x 7 =	10 x 12 =
10 x 10 =	10 x 5 =	10 x 11 =
10 x 6 =	10 x 8 =	

Multiplication Drill

$.11 x 10	$.32 x 10	$.16 x 10	$.45 x 10
$.82 x 10	$.95 x 10	$2.20 x 10	$1.60 x 10
$1.45 x 10	$3.25 x 10	$7.38 x 10	$9.62 x 10
$110.10 x 10	$ 30.20 x 10	$125.25 x 10	$261.10 x 10

Problems

1. Elsie has filled her stamp book. There are 10 pages with 25 stamps on each page. How many stamps are there in the book?

2. If a train travels at the rate of 30 miles an hour, how far does it go in 9 hours?

3. There are 30 days in the month of November. How many hours are there in the month?

4. There are 60 minutes in a hour. How many minutes are there in 8 hours?

Multiplication Drill

Problems: (Cont'd.)

5. A box holds 144 pieces of chalk, how many pieces are there in 10 boxes?
6. How many cents are there in $5.00?
7. Multiply 6 by 50 and add 25.
8. Find the cost of 75 spellers at 40¢ each.
9. If Mr. Brown travels 26 miles to and from his work each day, how many miles does he travel in 10 days?
10. Add 5 and 5 and multiply the sum by 80.
11. A boy bought nine 10-cent articles in a store. What did he pay for them?
12. John bought some goldfish at 10¢ each. What did he pay for seven goldfish?
13. 100 x 8 + 50 = ?
14. If a notebook is worth a dime, how much must you pay for 12 notebooks?
15. If a large cake of ice weighs 100 pounds, what will be the weight of 25 cakes of ice of the same size?
16. There are 2000 pounds in a ton. How many pounds are there in 6 tons?
17. There are 366 days in a leap year. How many days are there in 10 leap years?
18. A dealer buys tables at $25.95 each. What must he pay for 10 tables?
19. If an airplane flies 100 miles an hour, how far does it fly in 11 hours?

Multiplication Drill

Problems: (Cont'd.)

20. How many eggs are there in 10 dozen?
21. If there are 15 pencils in a box, how many pencils are there in 10 boxes.
22. Multiply two dollars and fifty cents by 9.
23. How many bushels of wheat will 23 acres of land yield at 90 bushels an acre?
24. How many oranges are there in 3 boxes if there are five dozen oranges in a box?
25. Mary saves 50¢ each month. How much money has she saved at the end of a year?
26. A pound of candy costs $.90. Find the cost of 6 pounds.
27. A string of beads is worth $1.50. Find the cost of 5 strings of beads.
28. If one automobile costs $1725, what will 10 automobiles cost?
29. There are 500 sheets of paper in a package. How many sheets of paper are there in 7 packages?
30. Find the cost of 10 hats at $9.50 each.
31. Mary painted fifteen holiday cards each day for 10 days. How many cards did she paint?
32. Mr. Stern spends 60¢ each working day for his lunch. How much does his lunch cost him for a five day week?

Multiplication Drill

Problems: (Cont'd.)

33. Ellen bought 19 greeting cards at $.10 each! How much did she pay for her cards?

34. In an orchard there are 25 trees in a row. If there are 10 tows of trees and 10 orchards, how many trees are there in all?

35. If Fred learns ten new words each day for 2 weeks, how many new words will he know?

36. A class works ten examples in arithmetic each evening. If the class meets 6 times how many examples will the students work?

37. If a boy reads 35 pages of a book each day for 20 days, how many pages will he read?

38. If a washing-machine costs $150.25, what will 10 machines cost?

39. If an office receives an average of 10 telephone calls each day, how many calls will it receive in 15 days?

40. There are 10 cards containing information about voting in a bundle. How many cards are there in 52 bundles?

41. If 225 pages are needed to make a book how many pages will be needed for 30 books?

Multiplication Drill

Problems: (Cont'd.)

42. The distance between 2 cities is 786 miles. How many miles does a man travel if he makes 10 trips between the 2 cities?

43. A painter charged $15.85 to paint signs for advertising. At this rate how much money should he get for painting 10 signs?

44. Mrs. Johnson sold home made rugs. She sold 10 rugs at $19.95 each. What did she receive for the rugs?

45. Mr. Brown's laundry bill averages $2.78 per week. How much is that for 10 weeks?

46. The train fare from Baltimore to a large northern city is $17.95. If 60 people are traveling this route, what will be the amount of the total fare?

47. Find the cost of 10 towels at $.39 each, 10 scarfs at $1.29 each and 10 cloths at $.37 each.

48. Find the cost of 10 greeting cards at $.27 each, 10 pencils at $.07 each and 2 fountain pens at $1.47 each.

49. A store-keeper bought 10 crages of oranges, each containing 5 dozen oranges. If he sells the oranges at $.05 a piece how much money will he have?

Multiplying By Eleven

Add the columns of 11's from one 11 to twelve 11's.

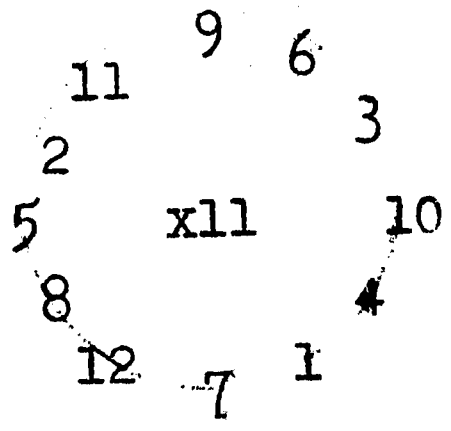
```
                                                    11
                                                 11 11
                                              11 11 11
                                           11 11 11 11
                                        11 11 11 11 11
                                     11 11 11 11 11 11
                                  11 11 11 11 11 11 11
                               11 11 11 11 11 11 11 11
                            11 11 11 11 11 11 11 11 11
                         11 11 11 11 11 11 11 11 11 11
                      11 11 11 11 11 11 11 11 11 11 11
                   11 11 11 11 11 11 11 11 11 11 11 11
```

1. Count the columns of 11's from one 11 to twelve 11's.
2. Place your answer under each line.
3. Read the columns beginning "one 11 is 11, two 11's are 22, three 11's are 33", and so on.
4. How many are six 11's? two 11's? eight 11's? nine 11's? ten 11's?

Learn the table:

1 x 11 =	5 x 11 =	9 x 11 =
2 x 11 =	6 x 11 =	10 x 11 =
3 x 11 =	7 x 11 =	11 x 11 =
4 x 11 =	8 x 11 =	12 x 11 =
	0 x 11 =	11 x 0 =

Practice - Table of Eleven



1. There are twelve numbers on the circle
2. Beginning with 9 and moving clockwise, multiply each number by 11.
3. Write each answer on your paper.

- -

Supply the missing numbers:

22 = ____ 11's	44 = ____ 11's	55 = ____ 11'
33 = ____ 11's	88 = ____ 11's	110 = ____ 11'
66 = ____ 11's	77 = ____ 11's	121 = ____ 11'

State the answer:

11 x 4	11 x 1	11 x 11	0 x 11
11 x 2	11 x 8	5 x 11	8 x 11
11 x 9	11 x 5	3 x 11	4 x 11
11 x 6	11 x 12	7 x 11	6 x 11
11 x 3	11 x 0	9 x 11	2 x 11
11 x 7	11 x 11	12 x 11	10 x 11

How much must John pay for:

eleven 3 - cent stamps? _____

eleven 5 - cent erasers? _____

eleven 10- cent notebooks? _____

eleven 12- cent articles? _____

eleven 2 - cent postals? _____

eleven 6 - cent pictures? _____

Practice - Multiplying By Eleven

eleven 8 - cent pads? _____
eleven 1 - cent stamps? _____
eleven 7 - cent papers? _____
eleven 9 - cent cards? _____
one 11-cent pin? _____
four 11-cent pens? _____
nine 11-cent cakes? _____
six 11-cent pictures? _____
twelve 11-cent marbles? _____
five 11-cent books? _____
seven 11-cent pencils? _____
ten 11-cent cards? _____
eight 11-cent balls? _____
three 11-cent stickers? _____

11	12	9	8	10	7
11	12	9	8	10	7
11	12	9	8	10	7
11	12	9	8	10	7
11	12	9	8	10	7
11	12	9	8	10	7
11	12	9	8	10	7
11	12	9	8	10	7
11	12	9	8	10	7
11	12	9	8	10	7
11	12	9	8	10	7
11	12	9	8	10	7

Drill - Multiplying By Eleven

3 x 11	5 x 11	11 x 12	4 x 11
7 x 11	7 x 11	11 x 6	10 x 11
10 x 11	9 x 11	11 x 0	0 x 11

11 x ( ) = 33	11 x ( ) = 132
11 x ( ) = 44	11 x ( ) = 99
11 x ( ) = 55	11 x ( ) = 88
11 x ( ) = 66	11 x ( ) = 11
11 x ( ) = 22	11 x ( ) = 77
11 x ( ) = 120	11 x ( ) - 121

seven 11's are
8 elevens are
nine 11's are
12 elevens are

eleven 11's are
6 elevens are
eight 11's are
5 elevens are

11 x 8 = ___ x 11	11 x 4 = ___ x 11
11 x 5 = ___ x 11	11 x 6 = ___ x 11
11 x 7 = ___ x 11	11 x 2 = ___ x 11
11 x 10= ___ x 11	11 x 0 = ___ x 11
11 x 9 = ___ x 11	11 x 11= ___ x 11
11 x 12= ___ x 11	11 x 3 = ___ x 11

10
3
5
7
9 x 11 = _____
11
4
6
8
_____

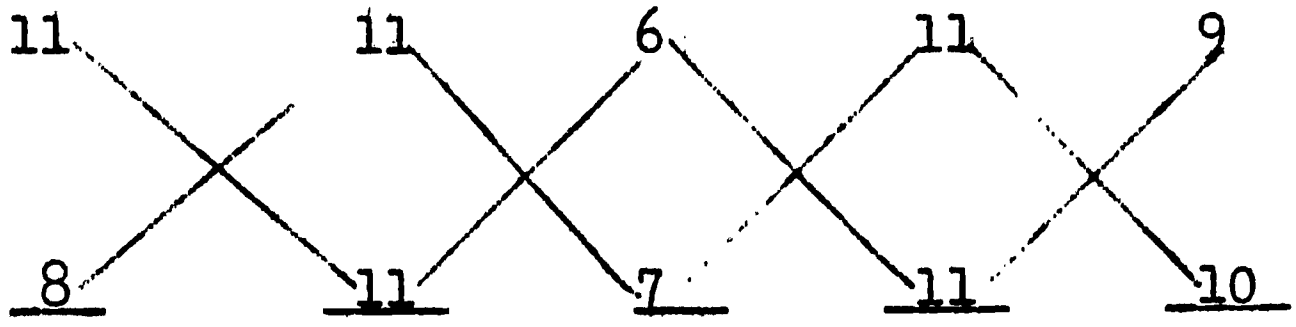
1. Multiply each number by 11.
2. Write the answer on your paper.

Practice - Multiplying By Eleven

Obey the signs and write the answers:

11 x 2 - 2 =	11 x 5 + 5 =
11 x 3 + 2 =	4 x 11 - 4 =
11 x 10 - 10 =	8 x 11 - 8 =
11 x 6 - 6 =	2 x 2 x 11 =

Multiply the number at the top by the number on the bottom of the line:



Drill:

9 x 11	5 x 11	3 x 11	10 x 11	6 x 11	2 x 11
12 X 11	4 X 11	8 x 11	11 x 11	0 x 11	7 x 11
10 x 11	20 x 11	30 x 11	40 x 11	50 x 11	60 x 11

Multiplication Drill

70 x 11	80 x 11	100 x 11	300 x 11	500 x 11	200 x 11
90 x 11	110 x 11	120 x 11	3000 x 11	4000 x 11	5000 x 11
10 x 11	11 x 11	12 x 11	13 x 11	14 x 11	15 x 11
21 x 11	31 x 11	41 x 11	51 x 11	61 x 11	71 x 11
22 x 11	80 x 11	90 x 11	33 x 11	44 x 11	55 x 11
81 x 11	18 x 11	32 x 11	23 x 11	19 x 11	92 x 11
43 x 11	25 x 11	62 x 11	73 x 11	84 x 11	95 x 11

Multiplication Drill

$1.00 x 11	$1.02 x 11	$.44 x 11	$5.00 x 11	$10.00 x 11	$.11 x 11
$2.02 x 11	$3.01 x 11	$5.20 x 11	$6.00 x 11	$1.12 x 11	$1.22 x 11
$3.04 x 11	$6.20 x 11	$8.01 x 11	$.90 x 11	$1.09 x 11	$3.24 x 11
$2.20 x 11	$6.06 x 11	$9.02 x 11	$8.30 x 11	$10.00 x 11	$12.00 x 11
$11.05 x 11	$.07 x 11	$9.10 x 11	$20.00 x 11		
$5.25 x 11	$6.37 x 11				

Multiplication Drill
Problems

1. If a yard of cloth cost 20¢, what will 11 yards cost?
2. Find the cost of 11 footballs at $3.10 each.
3. How many eggs are there in 11 dozen?
4. A spelling book costs $.60. How much are 11 spellers worth?
5. In an orchard there are 16 trees in a row. How many trees are there in eleven rows?
6. Some Boy Scout suits were bought at $11.00 each. How much was paid for 12 suits?
7. Mr. Smith bought some pencils for 80¢ a dozen. What did he pay for 11 dozen pencils?
8. Find the cost of 11 suits of clothes at $50.50 each.
9. Find the cost of 11 toy drums at 60¢ each.
10. How much must be paid for 11 rugs at $12.20 each?
11. What must be paid for 11 neckties at $1.25 each?
12. A ball team bought 11 sweaters at $5.10 each. How much did the sweaters cost?

Multiplication Drill

Problems: Cont'd.

13. Mary buys 11 yards of cloth at 55 cents per yard. What does Mary pay for the cloth?
14. Suppose a book seller sells 11 books at $1.45 each. How much money are the books worth?
15. Multiply $20.10 by 11.
16. Arthur wants to buy eleven 15-cent balls How much money does he need?
17. Find the cost of 8 yards of dress goods at $1.10 a yard.
18. A family used 11 quarts of milk each week for 45 weeks. How many quarts of milk did the family use?
19. A group of 11 boys have 25 stamps in each of their stamp books. How many stamps are owned by the group?
20. If a boy earns $3.20 a day and works 11 days, how much money does he receive?
21. Mr. Jones set out 11 rows of tomato plants, 24 plants in a row. He set out how many plants?
22. Mrs. White prepared 11 lunches costing $.78 each. How much did the lunches cost in all?
23. At $11.25 a pair, find the cost of 11 pairs of shoes.
24. Mr. King drove his car at an average of 45 miles a day. How far did he drive in 11 days?

Multiplication Drill

Problems: (Cont'd.)

25. How many days are there in 11 school weeks?
26. How many months are there in 11 years?
27. Multiply 11 by 11 and subtract 11.
28. At $6.25 each, find the cost of 11 baseball suits.
29. Find the cost of 56 greeting cards at 11¢ each.
30. John has 115 marbles each worth 11¢. What is the value of John's marbles?
31. There are 36 inches in a yard. How many inches are there in 11 yards?
32. Find the cost of 8 pairs of stockings at $1.10 each.
33. Henry bought a knife for 65¢. What would 11 knives like Henry's be worth?
34. What is the difference between 11 x 25 and 15 x 11?
35. Find the sum of 11 x 33, 11 x 45 and 11 x 52.
36. A bale of cotton weighed 495 lbs. Find the weight of 11 bales.
37. At 315 miles a day how far can a ship travel in 11 days?
38. Multiply $1.75 by 11.
39. At $1.11 each find the cost of 11 books.
40. Find the cost of 11 cars at $8.00 each.
41. Find the cost of eleven 20-cent articles and fifty 11-cent articles.

Multiplying By Twelve

```
                                                    12
                                                 12 12
                                              12 12 12
                                           12 12 12 12
                                        12 12 12 12 12
                                     12 12 12 12 12 12
                                  12 12 12 12 12 12 12
                               12 12 12 12 12 12 12 12
                            12 12 12 12 12 12 12 12 12
                         12 12 12 12 12 12 12 12 12 12
                      12 12 12 12 12 12 12 12 12 12 12
                   12 12 12 12 12 12 12 12 12 12 12 12
```

1. Count the columns of 12's from one 12 to twelve 12's.
2. Place your answer under each line.
3. Read the columns beginning "one 12 is 12, two 12's are 24, three 12's are 36," and so on.
4. How many are five 12's? ten 12's? six 12's? eight 12's? twelve 12's?

Learn the table:

1 x 12 =	5 x 12 =	9 x 12 =
2 x 12 =	6 x 12 =	10 x 12 =
3 x 12 =	7 x 12 =	11 x 12 =
4 x 12 =	8 x 12 =	12 x 12 =
	0 x 12 =	12 x 0 =

Practice - Table of Twelve

8		___ 1. There are twelve numbers on the ladder.
2		___
11		___ 2. Beginning at the top, multiply each number by 12.
3		___
9		___ 3. Write each answer on your paper.
4	x 12 =	___
12		___
0		___
6		___
5		___
10		___
7		___

Supply the missing numbers:

48 = ___ 12's
24 = ___ 12's
36 = ___ 12's
60 = ___ 12's
72 = ___ 12's

84 = ___ 12's
96 = ___ 12's
108 = ___ 12's
120 = ___ 12's
132 = ___ 12's
144 = ___ 12's

12 x 7
12 x 3
12 x 6
12 x 9
12 x 2
12 x 4

12 x 12
12 x 0
12 x 11
12 x 5
12 x 8
12 x 10

5 x 12
8 x 12
6 x 12
12 x 12
0 x 12
1 x 12

11 x 12
7 x 12
3 x 12
10 x 12
2 x 12
4 x 12

Practice - Multiplying By Twelve

How much should be paid for:

twelve 5-cent stamps?_____
twelve 11-cent erasers?_____
twelve 7-cent balls?_____
twelve 8-cent pencils?_____
twelve 2-cent postals?_____
twelve 6-cent pads?_____
twelve 4-cent candies?_____
twelve 10-cent cards?_____
twelve 12-cent notebooks?_____
twelve 9-cent stickers?_____
three 12-cent books?_____
eight 12-cent rulers?_____
twelve 12-cent calendars?
four 12-cent boxes?_____
five 12-cent hangers?_____
nine 12-cent stamps?_____
ten 12-cent papers?_____
six 12-cent cookies?_____
eleven 12-cent articles?_____
seven 12-cent pencils?_____

4 x 12	6 x 12	0 x 12
7 x 12	9 x 12	3 x 12
11 x 12	12 x 12	5 x 12
8 x 12	10 x 12	2 x 12

Multiplication Drill

12 x ( ) = 24
12 x ( ) = 48
12 x ( ) = 96
12 x ( ) = 120
12 x ( ) = 12
12 x ( ) = 0

12 x ( ) = 36
12 x ( ) = 72
12 x ( ) = 108
12 x ( ) = 132
12 x ( ) = 144
12 x ( ) = 84

twelve 12's are
9 twelves are
eleven 12's are
7 twelves are

6 twelves are
ten 12's are
8 twelves are
five 12's are

12 x ___ = ___ x 12
12 x ___ = ___ x 12
12 x ___ = ___ x 12
12 x ___ = ___ x 12

12 x ___ = ___ x 12
12 x ___ = ___ x 12
12 x ___ = ___ x 12
12 x ___ = ___ x 12

12	8	6	11	7	9
12	8	6	11	7	9
12	8	6	11	7	9
12	8	6	11	7	9
12	8	6	11	7	9
12	8	6	11	7	9
12	8	6	11	7	9
12	8	6	11	7	9
12	8	6	11	7	9
12	8	6	11	7	9
12	8	6	11	7	9
12	8	6	11	7	9
12	8	6	11	7	9
12	8	6	11	7	9

Practice - Multiplying By Twelve

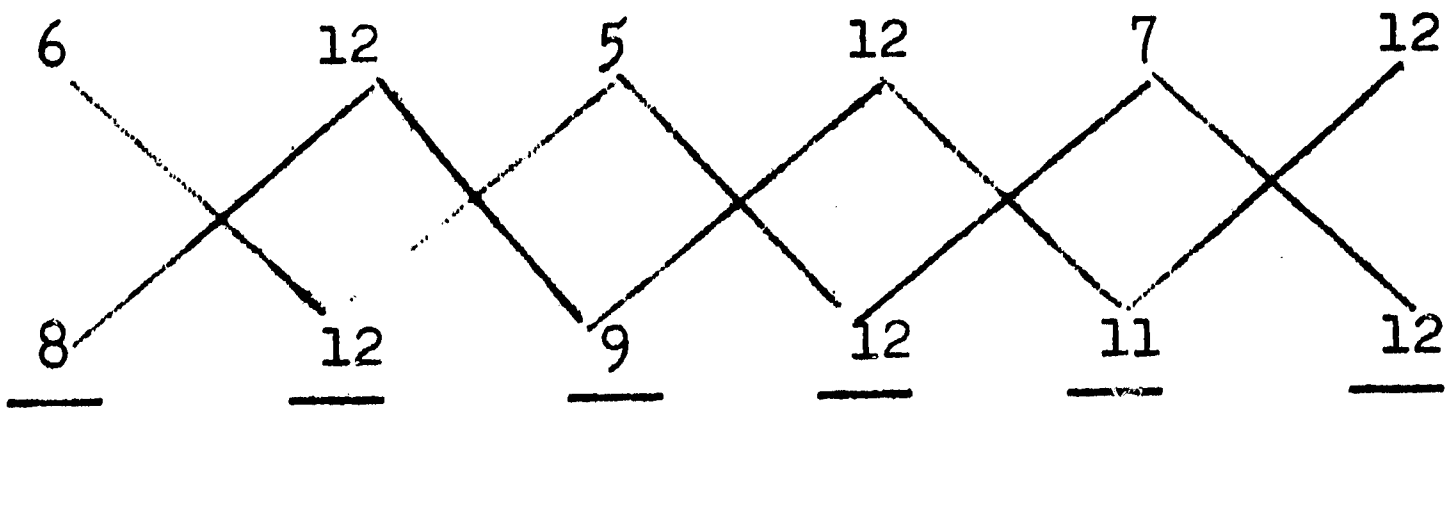
12		____
7		____
9		____
6	x 12 =	____
10		____
8		____
5		____
4		____
11		____
3		____

1. Multiply each number by 12.
2. Write the answer on your paper.

Obey the signs and write the answers:

12 x 3 - 1 =	12 x 8 - 6 =
12 x 4 + 2 =	12 x 6 + 2 =
12 x 10 -10 =	12 x 7 - 4 =
12 x 5 + 5 =	12 x 11 - 2 =

Multiply the number at the top by the number on the bottom of the line:



Multiplication Drill

3 x 12	7 x 12	11 x 12	1 x 12	5 x 12	9 x 12
8 x 12	0 x 12	4 x 12	12 x 12	10 x 12	6 x 12
20 x 12	10 x 12	40 x 12	30 x 12	60 x 12	50 x 12
70 x 12	80 x 12	100 x 12	300 x 12	500 x 12	200 x 12
90 x 12	110 x 12	120 x 12	3000 x 12	4000 x 12	5000 x 12
10 x 12	11 x 12	12 x 12	13 x 12	14 x 12	15 x 12
31 x 12	51 x 12	61 x 12	71 x 12	21 x 12	41 x 12

Multiplication Drill

19 x 12	18 x 12	81 x 12	32 x 12	23 x 12	92 x 12
24 x 12	31 x 12	42 x 12	73 x 12	85 x 12	92 x 12
$.50 x 12	$.24 x 12	$1.00 x 12	$2.00 x 12		
$5.00 x 12	$10.00 x 12	$2.01 x 12	$4.02 x 12		
$5.03 x 12	$6.00 x 12	$1.10 x 12	$2.05 x 12	$5.30 x 12	
$3.20 x 12	$8.01 x 12	$1.09 x 12	$2.22 x 12	$3.04 x 12	
$8.01 x 12	$9.20 x 12	$40.00 x 12	$12.00 x 12	$15.00 x 12	

Multiplication Drill

$11.01 x 12	$.06 x 12	$.09 x 12	$20.00 x 12

$6.32 x 12	$7.45 x 12

Problems

1. There are 12 inches in a foot. How many inches are there in 10 feet?
2. How many eggs are there in 9 dozen?
3. There are 4 quarts in a gallon. How many quarts are there in 12 gallons?
4. Find the cost of 12 books if each book costs $1.70.
5. John spends $.60 for lunch each week day. How much does he spend for lunch in 12 days?
6. There are 16 ounces in a pound. How many ounces are there in 12 pounds?
7. Mr. Jones works 8 hours a day. How many hours does he work in 12 days?
8. Find the cost of 12 yards of ribbon at $1.10 per yard.
9. William earned $3.20 a day. How much did he earn in 12 days?
10. At 12¢ each, find the cost of 30 booklets.

Multiplication Drill

Problems: (Cont'd)

11. Mary works in a store on Saturday. She receives $4.50 each Saturday for 4 weeks. How much money does she save?
12. Henry saves $6.25 each week. How much does he save in 10 weeks?
13. John's brother works 7 hours a day in a bank. How many hours does he work in 8 weeks?
14. A workbook cost 65¢. Find the cost of 12 workbooks.
15. A man drives on an average of 35 miles each day. How many miles did he drive in 12 days?
16. Twelve persons went for a picnic. The cost of the lunch was $1.60 per person. What was the cost of the lunch?
17. In an orchard there are 14 rows of trees with 12 trees in each row. How many trees are there in the orchard?
18. 12 x 20 + 5 = ?
19. Two boys picked 12 crates of berries. There were 36 quarts in each crate. How many quarts of berries were picked.
20. Every Saturday for 12 weeks, John earned $4.52. How much money did he earn?
21. Find the cost of 12 automobiles at $9.25 each.

Multiplication Drill

Problems (Cont'd.)

22. There are 144 pieces of chalk in a box. How many pieces are there in 12 boxes?
23. What must be paid for 25 rulers at 12¢ each?
24. What will be the cost of 12 packages of paper at $.58 a package?
25. Find the cost of 12 globes at $3.65 each.
26. Mary spends 34¢ a day for car fare. If she rides to work 12 days, how much money does she spend for car fare.
27. Find the cost of 6 railroad tickets at $12.90 per ticket.
28. At an average speed of 40 miles an hour, how far can a man drive his car in 12 hours?
29. What will 5 pairs of shoes cost at $12.20 a pair?
30. Mr. James sold 12 books at $2.25 each. How much money did he receive?
31. How many months are there in 15 years?
32. Find the cost of 12 baseball suits at $3.20 each.
33. Find the cost of 12 boxes of candy at $1.62 a box.
34. There are 25 rows of chairs in a hall. If there are 12 chairs in each row, how many chairs does the hall contain?

Multiplication Drill

Problems: (Cont'd.)

35. Find the total cost of 12 pens at 75¢ each and 12 pencils at 35¢ each.
36. There are 500 sheets of paper in a package. How many sheets of paper are there in 12 packages?
37. Find the cost of 12 washing machines at $150.25 each.
38. A farmer sells 12 dozen eggs each week. How many dozen does he sell in 6 weeks.
39. Mrs. Black purchased an umbrella for $3.25. If she had purchased 12 umbrellas, how much money would she have spent?
40. A dictionary is worth $2.50. Find the cost of 12 dictionaries.
41. What is the cost of 12 hats at $7.50 each?
42. Find the cost of 12 pairs of scissors at $1.80 a pair.
43. Add 12 x 48 and 56 x 12.
44. What will 12 gallons of paint cost at $2.25 per gallon?
45. There are 4 pecks in a bushel. How many pecks are there in 12 bushels?
46. Find the cost of 12 books at $1.40 each.

Multiplication Drill

Problems: (Cont'd.)

47. How many words are there in 12 columns of words?
48. How much must be paid for 12 yards of goods at $3.55 per yard?
49. A scooter cost $5.35. Find the value of 12 scooters.
50. Mr. Brown bought some sweaters to resell. How much did he pay for 12 sweaters at $4.35 each?
51. At 75¢ each, what will 12 handkerchiefs cost?

Two-Figure Multiplication

A speller has 42 words on each page. If there are 32 pages, how many words are there in the speller.

To get the answer, 42 must be multiplied by 32, for example 32 x 42 = ?

Put the example on paper in the following way.....

```
  42
x 32
  84
 126
1344
```

Then, work the example thus: 2 x 42 = 84 Write the 84 so that the four is under the 2 in 32. Multiply 42 x 3 = 126. Place the 126 under the 84 so that the 6 is under the 8. Add the two numbers. Your answer is 1344. The speller contains 1,344 words.

Two Figure Multiplication

Copy and finish these examples:

1.
$$\begin{array}{r} 59 \\ \times\ 42 \\ \hline 118 \\ 6 \end{array}$$

2.
$$\begin{array}{r} 78 \\ \times\ 56 \\ \hline 468 \\ 0 \end{array}$$

3.
$$\begin{array}{r} 64 \\ \times\ 45 \\ \hline 320 \\ 6 \end{array}$$

4.
$$\begin{array}{r} 83 \\ \times\ 36 \\ \hline 498 \\ 9 \end{array}$$

5.
$$\begin{array}{r} 92 \\ \times\ 27 \\ \hline 644 \\ 4 \end{array}$$

6.
$$\begin{array}{r} 82 \\ \times\ 37 \\ \hline 574 \\ 6 \end{array}$$

7.
$$\begin{array}{r} 48 \\ \times\ 73 \\ \hline 144 \end{array}$$

8.
$$\begin{array}{r} 72 \\ \times\ 79 \\ \hline 648 \\ 4 \end{array}$$

Two Figure Multiplication

Copy and finish the following examples:

1. $\begin{array}{r} 74 \\ \times\ 53 \\ \hline 222 \end{array}$

2. $\begin{array}{r} 63 \\ \times\ 57 \\ \hline 441 \end{array}$

---

3. $\begin{array}{r} 82 \\ \times\ 36 \\ \hline 492 \end{array}$

4. $\begin{array}{r} 29 \\ \times\ 35 \\ \hline 145 \end{array}$

---

5. $\begin{array}{r} 37 \\ \times\ 29 \\ \hline 333 \end{array}$

6. $\begin{array}{r} 48 \\ \times\ 89 \\ \hline 432 \end{array}$

---

7. $\begin{array}{r} 73 \\ \times\ 87 \\ \hline 511 \end{array}$

8. $\begin{array}{r} 95 \\ \times\ 57 \\ \hline 665 \end{array}$

---

9. $\begin{array}{r} 58 \\ \times\ 43 \\ \hline 174 \end{array}$

10. $\begin{array}{r} 77 \\ \times\ 36 \\ \hline 462 \end{array}$

Two Figure Multiplication

Multiply these numbers being careful to watch the carryings.

1.	45 x 59	2.	74 x 65
3.	92 x 83	4.	59 x 47
5.	66 x 75	6.	50 x 65
7.	70 x 87	8.	$.90 x 29
9.	$.60 x 37	10.	$.80 x 86

Multiplying Dollars and Cents

At the swimming pool, a season ticket costs $2.75. At this price, what will be the cost of 67 tickets?

Multiply $275 by 67 just as you would multiply 275 by 67, first by 7 and then by 6. Cents always have two places. Put the decimal point before the last two figures of the product. Add the dollar sign ($). The answer is $184.25.

Example:

$$\begin{array}{r} \$2.75 \\ \times\ 67 \\ \hline 1925 \\ 1650 \\ \hline \$184.25 \end{array}$$

The ticket will cost $184.25.

Here is a second example:

A rug is worth $15.75. Find the cost of 25 rugs.

The rugs are worth $393.75.

Example:

$$\begin{array}{r} \$15.75 \\ \times\ 25 \\ \hline 7875 \\ 3150 \\ \hline \$393.75 \end{array}$$

More About Multiplication

If there is an example in which a zero is used as a figure, be careful to place your products in the correct place.

Example:

90	26
x 26	x 90
540	00
180	234
2340	2340

Copy and complete these examples: Be sure you check your answers.

70	35	60	59
x 35	x 70	x 59	x 60

80	29	50	97
x 29	x 80	x 97	x 50

Terms Used in Multiplication

Terms used in multiplication are shown below:

24	-	multiplicand
x 23	-	multiplier
72)	-	partial products
48)		
552	-	product

The multiplicand is the number to be multiplied. The multiplier is the number by which to multiply. The product is the answer. The sign (x) is the <u>times</u> sign.

Multiply these examples - writing the terms beside each number.

92 x 57	84 x 86	47 x 58
73 x 49	56 x 68	85 x 67
97 x 96	115 x 26	225 x 34

Terms Used in Multiplication - Cont'd.

301	508	420
x 45	x 38	x 49

Checking Multiplication

Here is a good way to check your work in multiplication. The multiplicand is 75, the multiplier 23 - find the product.

Example:

```
  75  - multiplicand
x 23  - multiplier
-----
 225
150
----
1725
```

To check, multiply just the opposite way:

Example:

```
  23
x 75
----
 115
161
----
1725
```

If the products are the same the answer is correct. If the products are not the same there is a mistake.

Practice - Multiplying Money

Practice until you can do these multiplications easily. Check your answers.

$2.50 x 32	$7.12 x 13	$5.41 x 21	$3.16 x 42
$9.23 x 13	$10.52 x 27	$1.59 x 68	$3.19 x 91
$8.67 x 27	$2.94 x 76	$9.65 x 95	$8.79 x 63
$9.05 x 97	$6.08 x 19	$5.76 x 67	$9.80 x 23
$0.79 x 87	$7.50 x 78	$10.20 x 65	$20.10 x 37

Multiplying Larger Numbers

Three - Figure Multiplication

Mr. Warren sold 123 cars at $531 each. How much did he receive for them?

$$\begin{array}{r} \$531 \\ \underline{\times\ 123} \\ 1593 \\ 1062 \\ \underline{531\ \ } \\ \$65313 \end{array}$$

First multiply by 3. Remember that you always write the first figure of each product under the number by which you multiply. Next multiply by 2. Write the 2 of 2 x 1 under the 2 by which you multiply. Next multiply by 1.

Write the 1 of 1 x 1 under the 1 by which you multiply. Check by finding 531 x 123.
Mr. Warren received $65,313.

Multiply and check your work:

$$\begin{array}{r} 915 \\ \underline{\times\ 196} \end{array} \qquad \begin{array}{r} 947 \\ \underline{\times\ 985} \end{array} \qquad \begin{array}{r} 368 \\ \underline{\times\ 649} \end{array} \qquad \begin{array}{r} 842 \\ \underline{\times\ 296} \end{array}$$

$$\begin{array}{r} 623 \\ \underline{\times\ 231} \end{array} \qquad \begin{array}{r} 861 \\ \underline{\times\ 234} \end{array} \qquad \begin{array}{r} 791 \\ \underline{\times\ 387} \end{array} \qquad \begin{array}{r} 632 \\ \underline{\times\ 748} \end{array}$$

Using Zeros in Multiplication

Study the following example carefully:

```
  324
x 103
  972
3240
33,372
```

Remember that the first figure of each product is written under the number used as the multiplier. When a zero is the multiplier, write it in its place and use the next number as the multiplier. Check the answer by multiplying by the opposite number.

Multiply and check the answers:

35 x 120	$2.12 x 240	$7.25 x 120	395 x 530
125 x 306	463 x 508	$5.77 x 708	$7.48 x 607

Using Zeros in Multiplication
Dollars and Cents

Mr. White said he sold 240 pairs of shoes at $6.15 a pair. Find how much he got for them.

$6.15
240
24600
1230
$1,476.00

Multiplying $6.15 by 240 gives the same figures as multiplying 615 by 240. In the product mark off two places with a period, to designate cents and write the $ before the answer.

Multiply and check answers:

$4.78 x 360	$7.29 x 110	$9.45 x 250	$6.81 x 430
$8.37 x 720	$2.96 x 180	$2.43 x 910	$3.72 x 290

Drill Work In Multiplication

Multiply in turn by 2, 20, 200:
by 3, 30, 300:
by 40, 400:
by 50, 500:
the following:

1.	265	5.	608
2.	$2.65	6.	$60.80
3.	278	7.	738
4.	$2.78	8.	$73.80

9. Multiply $634.75 by 8; by 80; by 800; by 860.
10. Multiply 775.40 by 9; by 90; by 900, by 925.
11. Multiply by 60: 145, 347 ft., $35.50.
12. Multiply by 500: 18, 65 yd., $20.40.
13. Multiply 160 in turn by 50¢, 20¢, 10¢, 25¢.
14. Multiply 330 by $445.80.
15. Perform the following multiplications:

320	x	$246.70
800	x	2835 ft.
700	x	6278 pd.
7000	x	$413.50
$2750	x	645

Speed and Accuracy in Multiplication

How quickly can you multiply these numbers?

(1)

51	43	65	24	57	73	28	49
2	x 8	x 3	x 2	x 9	x 6	x 9	x 6

(2)

72	30	44	66	33	70	27	61
8	x 9	x 8	x 4	x 2	x 7	x 2	x 6

(3)

56	47	39	81	23	56	83	49
6	x 2	x 8	x 4	x 7	x 9	x 3	x 6

(4)

49	54	20	31	38	94	76	37
7	x 6	x 9	x 3	x 6	x 4	x 8	x 7

(5)

55	20	57	72	46	97	29	68
5	x 6	x 3	x 9	x 7	x 4	x 2	x 8

(6)

28	98	75	69	36	50	88	76
3	x 9	x 5	x 7	x 4	x 8	x 6	x 2

Speed and Accuracy in Multiplication

Multiply and see how many correct results you can get.

$4.50 x 21	$6.27 x 35	$22.30 x 50	$225.35 x 43
$7.60 x 34	$8.75 x 34	$23.65 x 30	$106.68 x 56
$8.80 x 65	$8.97 x 98	$48.70 x 40	$204.33 x 24
$5.68 x 22	$1.08 x 39	$57.65 x 20	$307.53 x 29
$6.43 x 38	$3.13 x 57	$73.65 x 30	$207.98 x 68
$7.47 x 49	$3.78 x 99	$49.60 x 60	$137.87 x 38

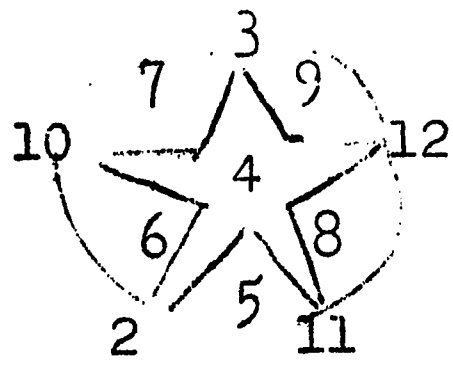
Review Drill in Multiplication

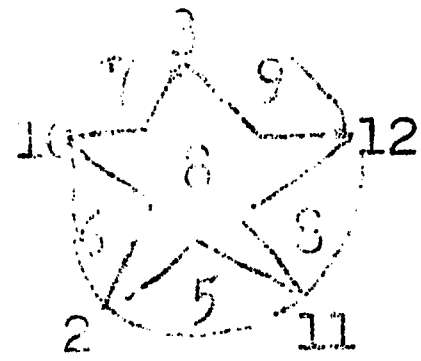
Copy and Multiply:

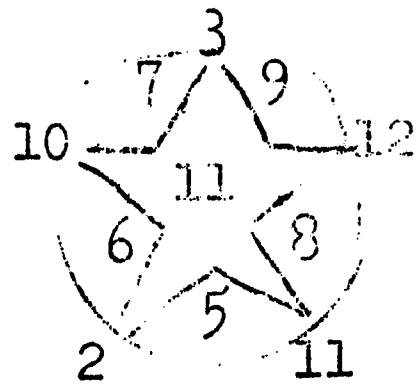
743 x 36	445 x 25	947 x 514	475 x 47
538 x 828	760 x 39	847 x 425	756 x 357
652 x 36	839 x 424	628 x 307	581 x 406
751 x 460	906 x 76	437 x 38	549 x 357
430 x 380	949 x 307	823 x 34	739 x 65
872 x 650	457 x 304	740 x 17	909 x 81

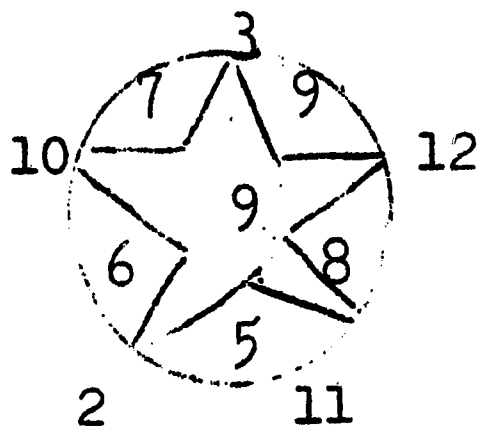
Drill - Multiplication

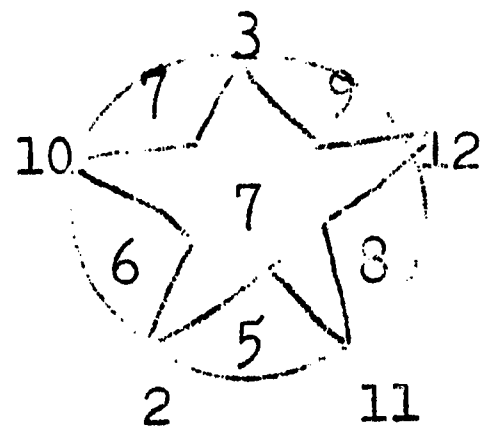
Multiply the number in the center of the star by each number inside and outside the circle. How many perfect stars can you get?

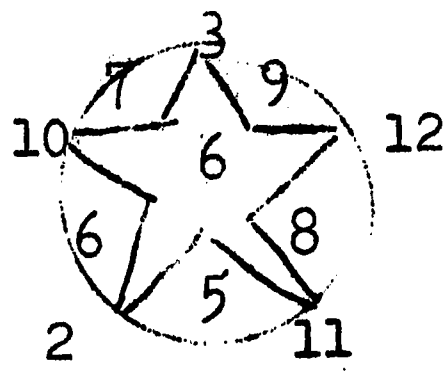


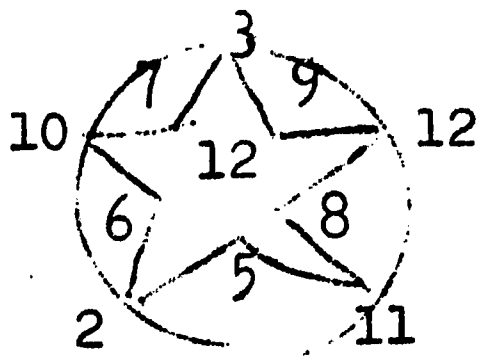


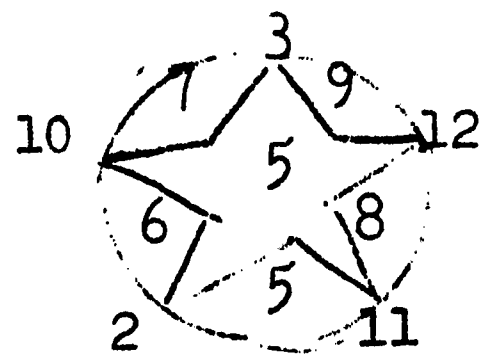












General Review

First find the sum, then the difference, and finally the product of each of the following:

687 85	563 96	326 308	470 95
785 31	620 331	400 138	820 326
527 95	530 28	249 93	452 84

$9.80 65	$307.05 19	$3.78 50	$261.50 39

Review Problems

1. There are 144 square inches in 1 square foot. How many square inches are there in 109 square feet?
2. The route of a rural mail carrier is 36 miles long, and he makes this trip 307 times a year. How many miles does he travel in a year?

Review Problems (Cont'd.)

3. A dealer sells 50 sets of furniture at $275 each. How much does he receive?
4. At $435 an acre, how much must a farmer pay for 150 acres of land?
5. A factory sold 31 motorcycles at $334 each. What was the sale price of the entire lot?
6. A family uses 3 pounds of sugar each week. How many pounds will be used at the end of a year?
7. How much will 25 books cost at $1.70 each?
8. How much will a dozen tables weigh at 25 lbs. each?
9. Find the cost of 2 radios valued at $235 each and 2 stands worth $50 each.
10. If a bushel of wheat weighs 60 pounds, what will be the weight of 1125 bushels.
11. A certain factory employs 516 persons. Their average wages are $65 a week. How much does the factory pay in wages each week?
12. Mr. Roberts saves $60 a month. He has been doing this for 10 years. How much money has he saved?
13. A school has ordered 30 dozen pads of paper. Each pad has 80 sheets. How many sheets of paper are there in all?

Review Problems (Cont'd.)

14. Find the cost of 115 handkerchiefs at $.34 each.
15. The multiplicand is 205, the multiplier is 26. What is the product?
16. There are 60 seconds in a minute. Mary has waited 25 minutes for her sister. How many seconds has she waited?
17. There are 20 crackers in a box. How many crackers are there in 36 boxes?
18. How many eggs are there in a crate which holds 30 dozen?
19. Driving an automobile at the average rate of 30 miles per hour, how far will a man drive in 12 hours?
20. A bushel of oats weighs 32 pounds. How many pounds do 20 bushels weigh?
21. In a book of 15 chapters, how many pages are there if each chapter averages 27 pages?
22. If you can read 24 pages of a book in an hour, how many pages can you read in 20 minutes?
23. What is the cost of 6 baskets of apples at $4.50 per basket?
24. At $.35 each what will be the cost of 15 towels?
25. How much is 70 times $320.10?
26. If a yard of ribbon costs 25¢, what will be the cost of 16 yards?

Review Problems (Cont'd.)

27. Find the cost of 26 yards of goods at $2.45 per yard.
28. How many ounces are there in 18 pounds?
29. Counting 14 stitches to an inch, how many stitches will there be in a hem 28 inches long?
30. What will 32 chairs cost if each chair is worth $24.50?
31. Multiply 40¢ by 235.
32. How many months has a person lived who is 35 years old?
33. Sixty minutes make an hour, how many minutes are there in 24 hours?
34. Twelve inches make a foot. How many inches long is the rug before a fireplace if it measures 4 feet?
35. Mr. Holmes drives 32 miles in going to and from work each day. How many miles does he drive in a week if he remains at home on Sunday only?
36. 45 x 36 + 18 = ?
37. 95 x 23 - 45 = ?
38. 17 + 32 x 16 = ?
39. 145 - 31 x 24 = ?
40. 73 x 26 + 49 x 17 = ?